2014 U.S. Bond Market Outlook and Strategy:

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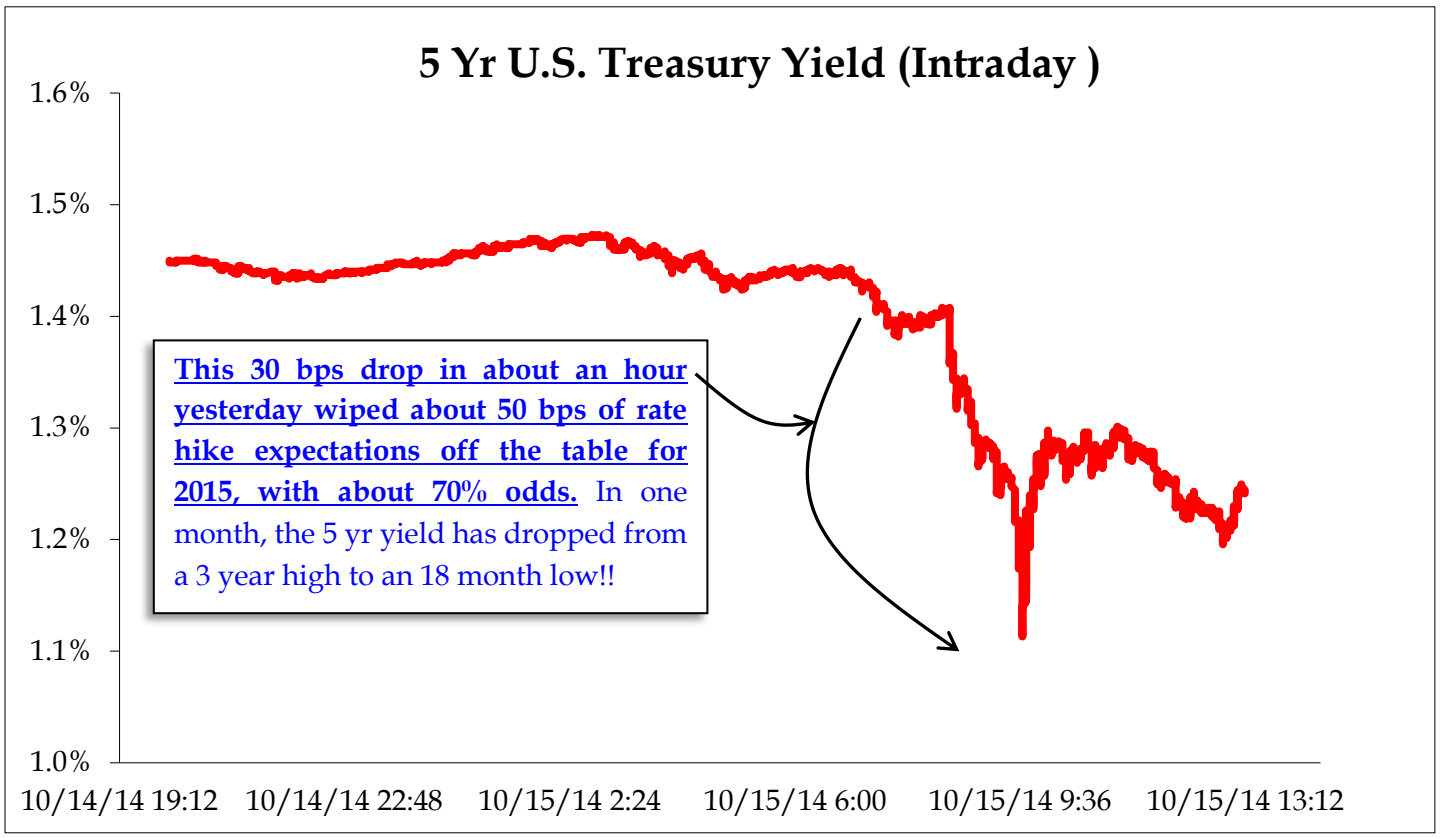
First, a Focus on The Recent:

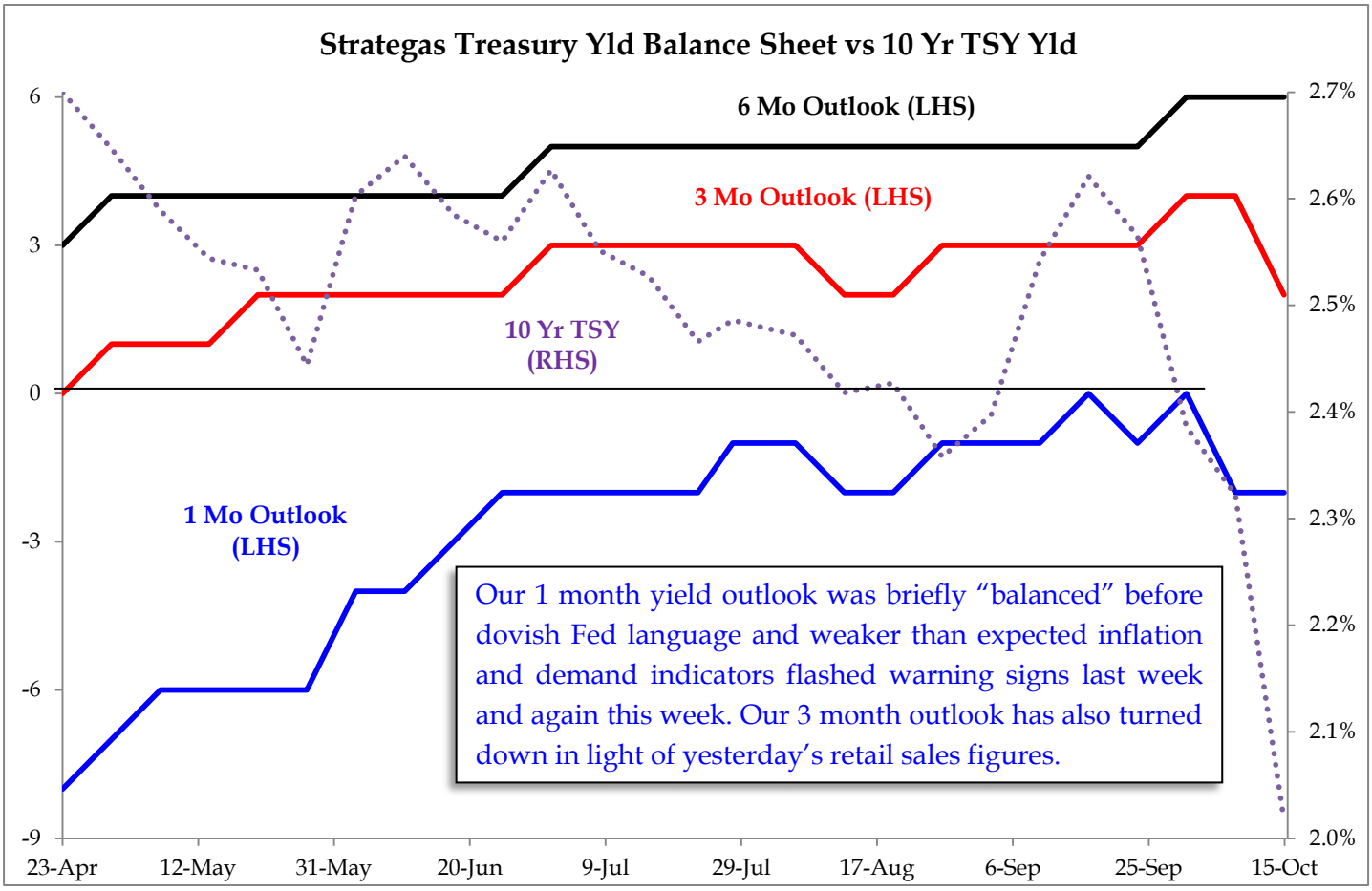
Fair Value Analysis has Gone Out the Window;
A Flip-Flopping Fed and Sagging Inflation
Job Market Continues to Improve
But no Signs of Wage Pressures
Strong Dollar and Flight to Quality Add to TSY Bid

WHAT THE HECK'S GOING ON OUT THERE?

The simplest answer seems to be a complete capitulation on U.S. growth optimism and rate hike odds for 2015, both of which were spurred by weak retail sales and producer price numbers and a growing chorus of Fed members who've conveyed concerns about the economy's resiliency. This has caused inflation expectations to plunge (3 year lows), rate hike expectations to shift to 4Q of 2015 (they were 2Q about a month ago), and the dollar to reverse. Yesterday's rates markets actions seemed to typify this notion that gone are the days where a March or even a June rate hike are plausible. So will this hold, or will some reversal bring yields higher and stabilize risk assets along the way? This will depend a lot on the language at this month's Fed meeting. At a minimum, it seems there'll be no rush to drop the "considerable time" phrase regarding the length of the zero rate policy. **If language adds credibility to the notion that dollar strength, asset market weakness, and exogenous factors are a threat to the labor market, then we should see some reversal of these recent trends. If language seems more focused on the need to further formulate the exit plan, without reference to recent developments, then markets could have more settling in to do. In either case, tapering, or better yet the conclusion of tapering, should still be expected at the coming meeting.** In the meantime, some key charts to monitor that might suggest any emerging or stabilizing trends would be U.S. 10 year inflation expectations, Fed Funds rate hike odds, mortgage rates, mortgage refi activity, and credit sector spreads.



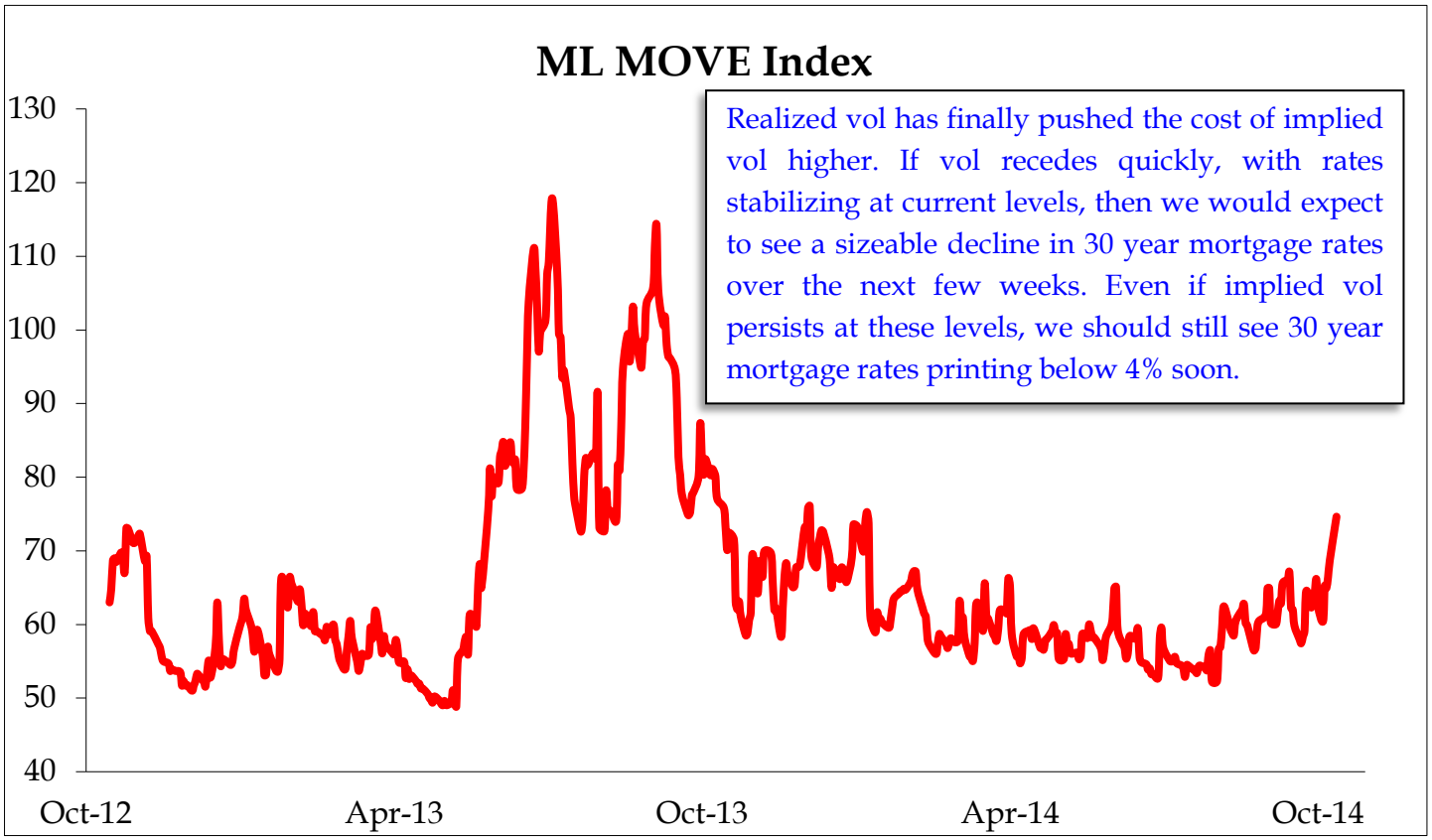
NO MORE BALANCE IN OUR TSY YIELD BALANCE SHEET

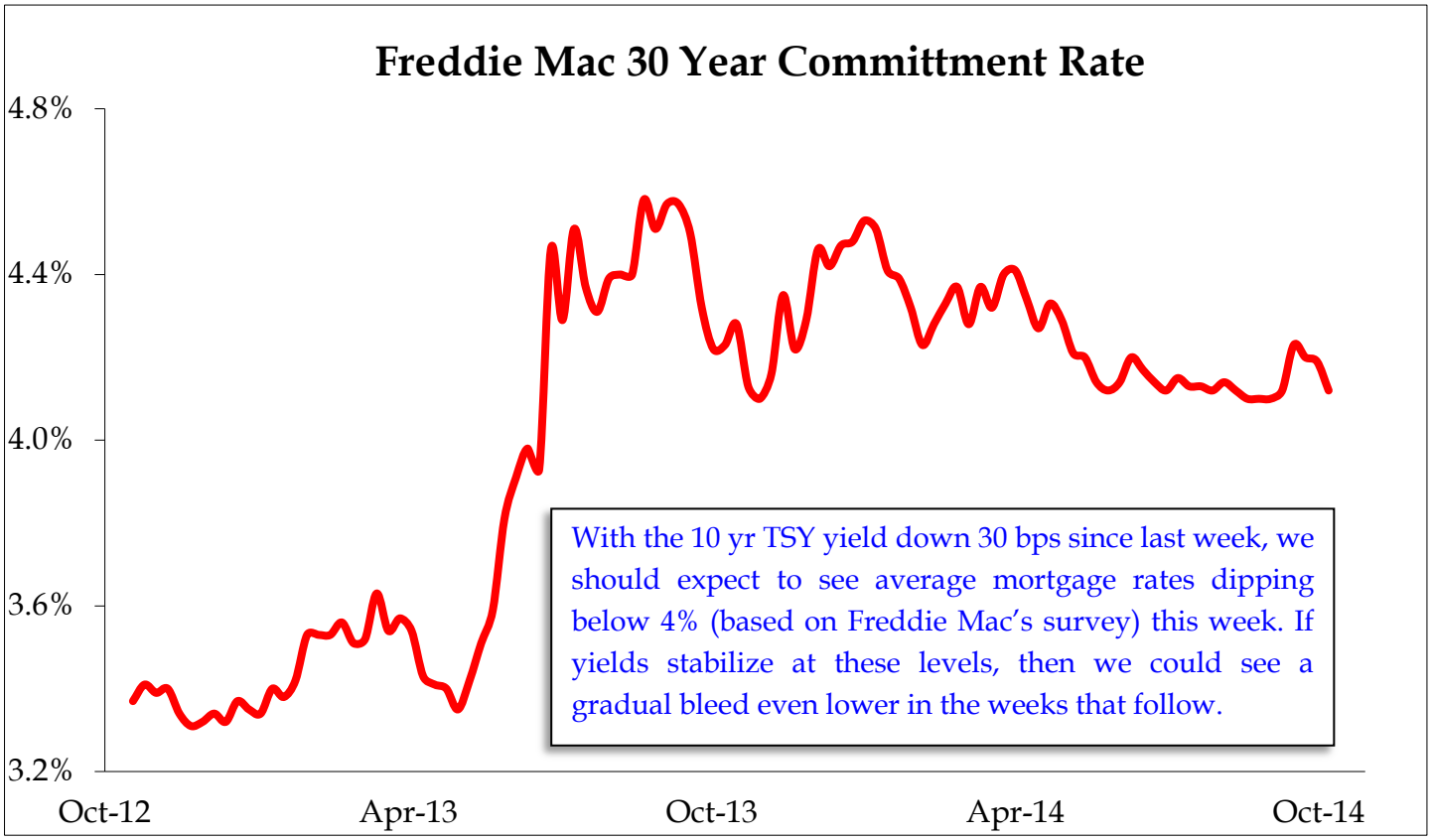


Strategas Treasury Yield Balance Sheet (10/15/14)			
Factor	1 Mo Fwd	3 Mos Fwd	6 Mos Fwd
Market Positioning	0	1	1
Treasury Supply	-1	0	0
MBS Supply	0	1	1
Muni Supply	0	1	0
Muni Demand (Seasonal)	0	-1	0
Fed Purchases (TSY and MBS)	0	0	0
Cost of Volatility Hedging	1	1	1
Inflation	-1	-1	1
Labor Market	1	1	1
Macro Headwinds	-1	0	0
Fed Language	0	0	1
ECB Actions	-1	-1	0
Balance	-2	2	6

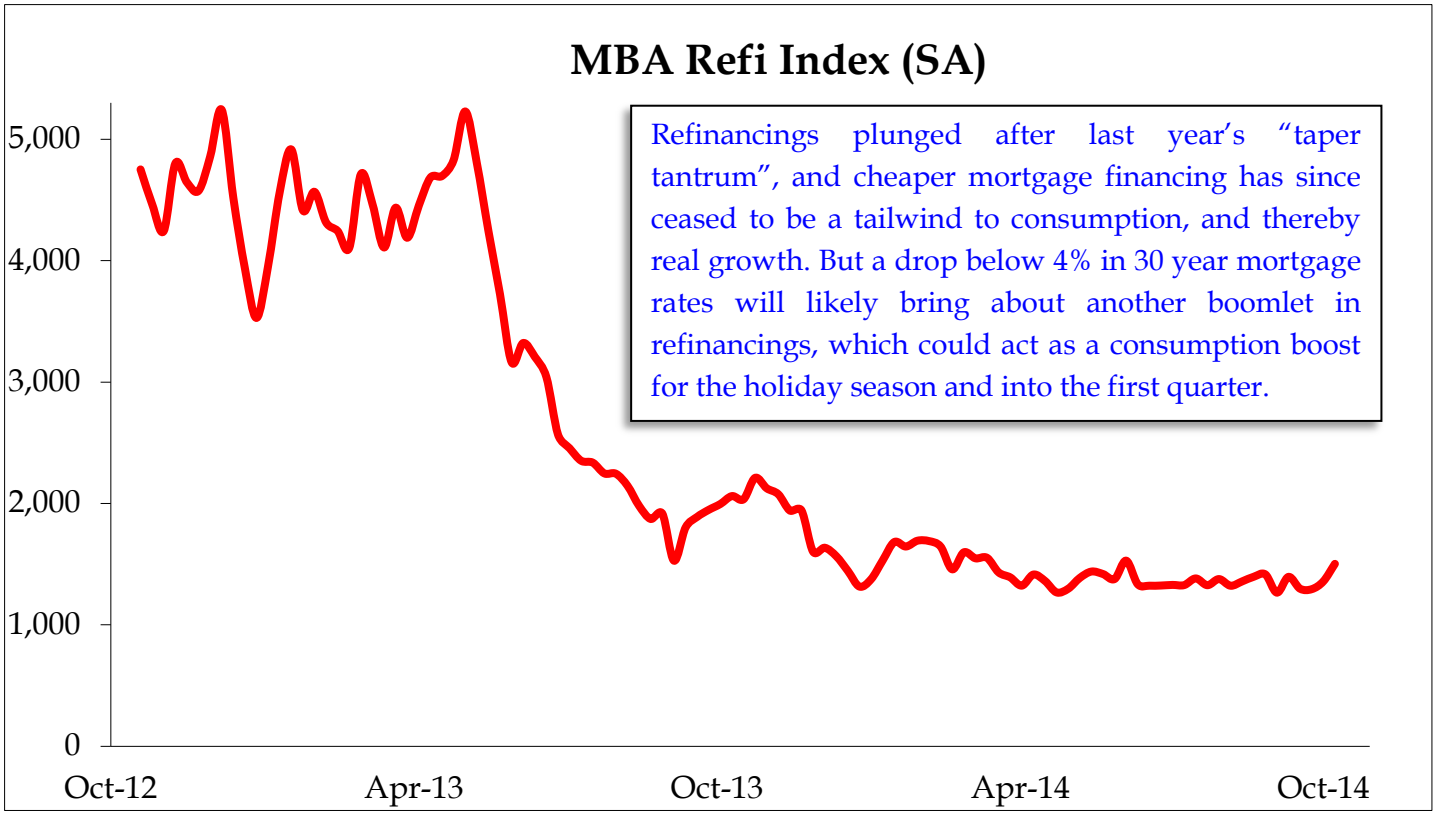
We've moved inflation back into the negative camp for both the 1 month and 3 month outlook, while Fed language has decidedly turned to the dovish side. **It may take a more rapid improvement in labor market data and/or a plunge in the dollar to push either of these factors back into the higher yields side of the balance sheet before year end.**

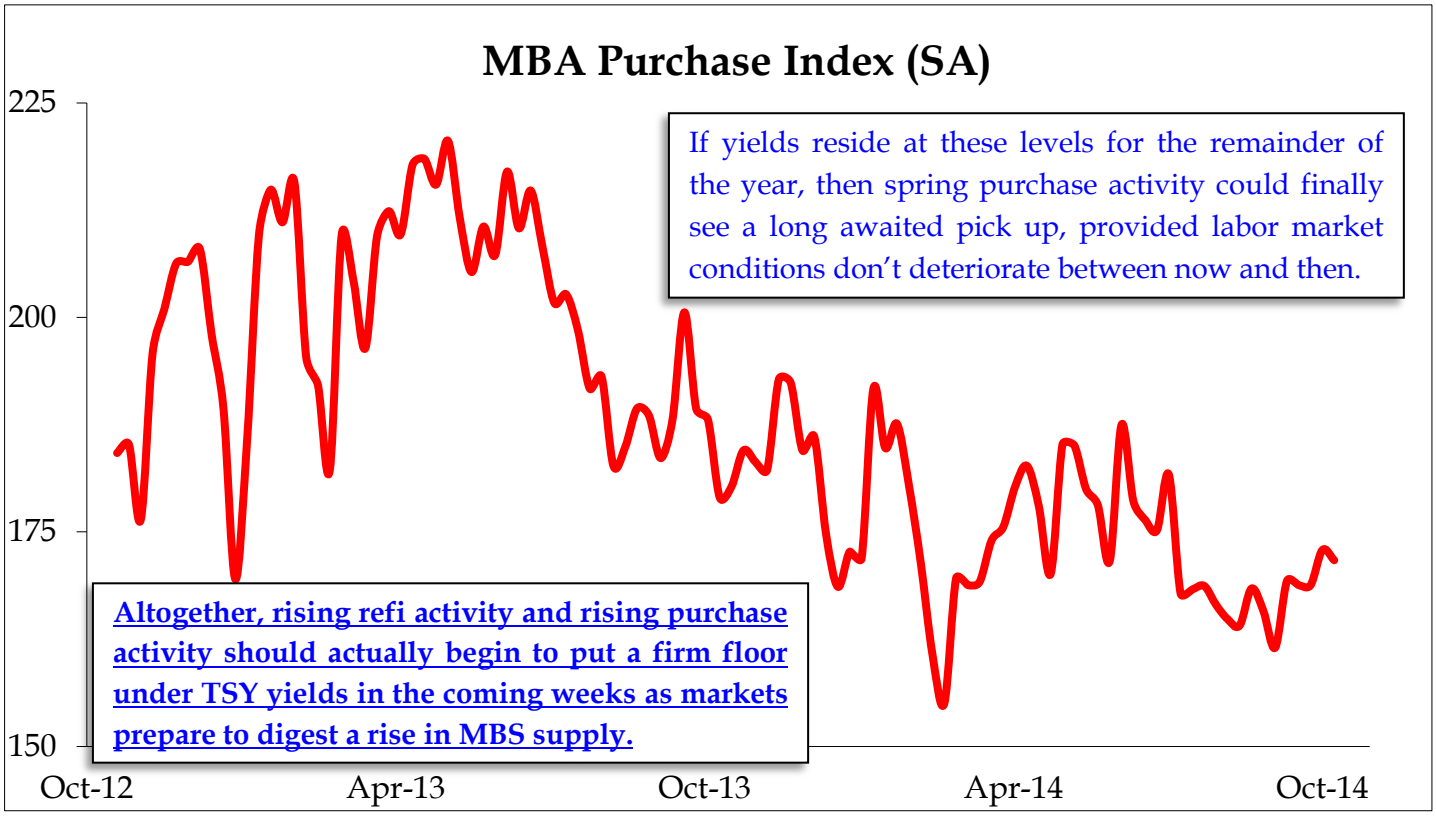
VOLATILITY'S FINALLY MOVING!


ML MOVE Index
130
120
110
100
90
80
70
60
50
40
Oct-12
Apr-13
Oct-13
Apr-14
Oct-14
Realized vol has finally pushed the cost of implied vol higher. If vol recedes quickly, with rates stabilizing at current levels, then we would expect to see a sizeable decline in 30 year mortgage rates over the next few weeks. Even if implied vol persists at these levels, we should still see 30 year mortgage rates printing below 4% soon.

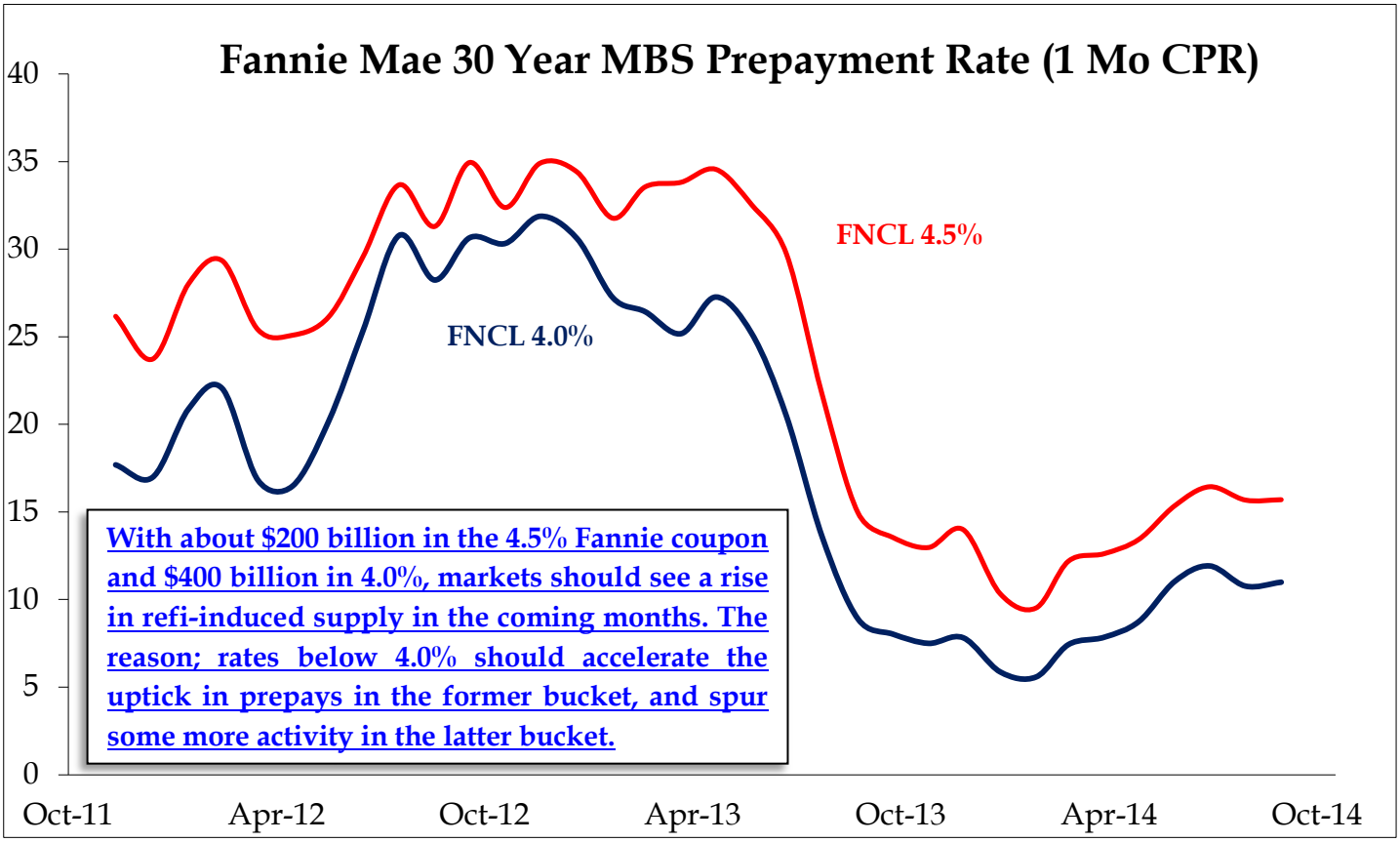

Freddie Mac 30 Year Committment Rate
4.8%
4.4%
4.0%
3.6%
3.2%
Oct-12
Apr-13
Oct-13
Apr-14
Oct-14
With the 10 yr TSY yield down 30 bps since last week, we should expect to see average mortgage rates dipping below 4% (based on Freddie Mac's survey) this week. If yields stabilize at these levels, then we could see a gradual bleed even lower in the weeks that follow.

REFIS SHOULD JUMP IMMEDIATELY, BUT PURCHASES SHOULD SEE A BOOST TOO IF YIELDS PERSIST HERE

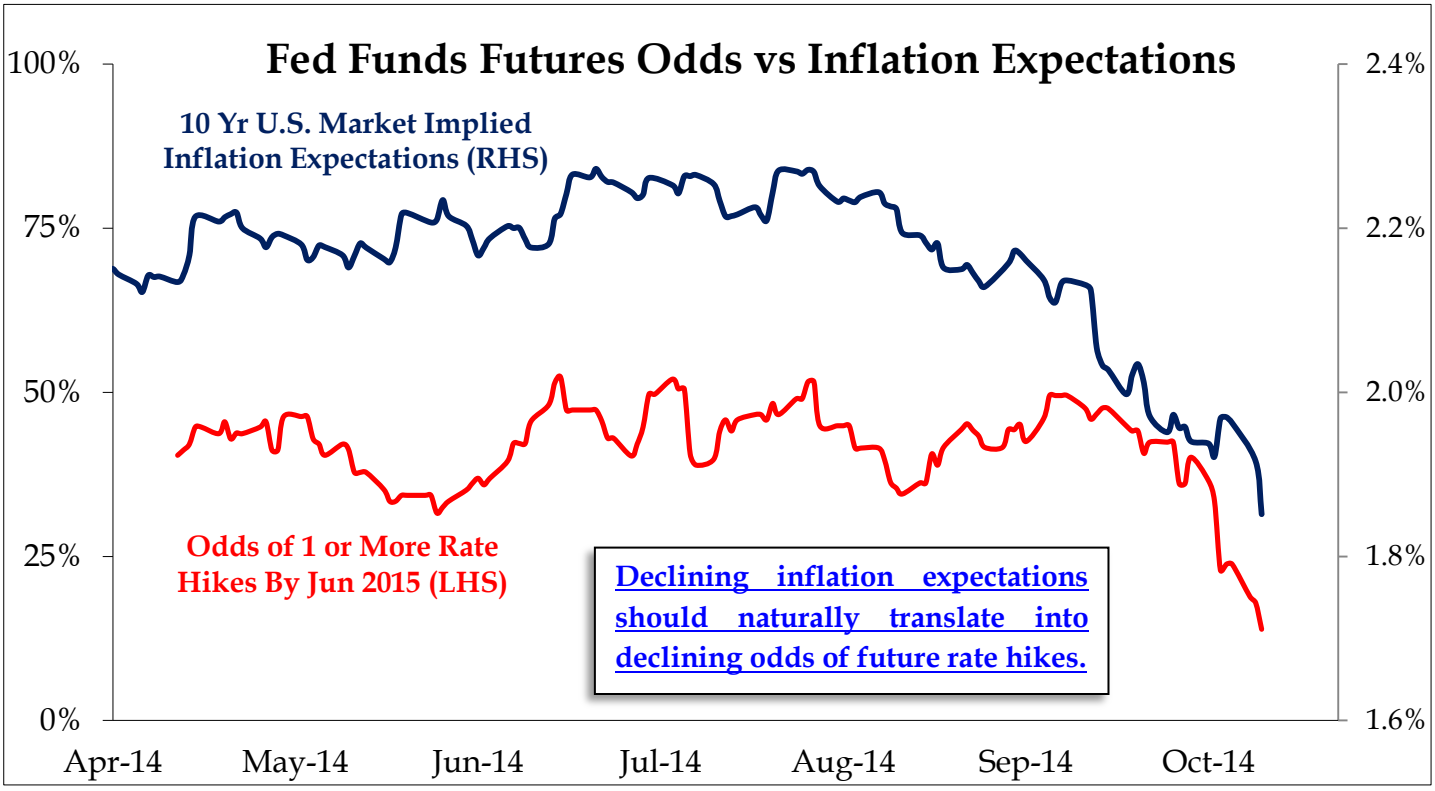




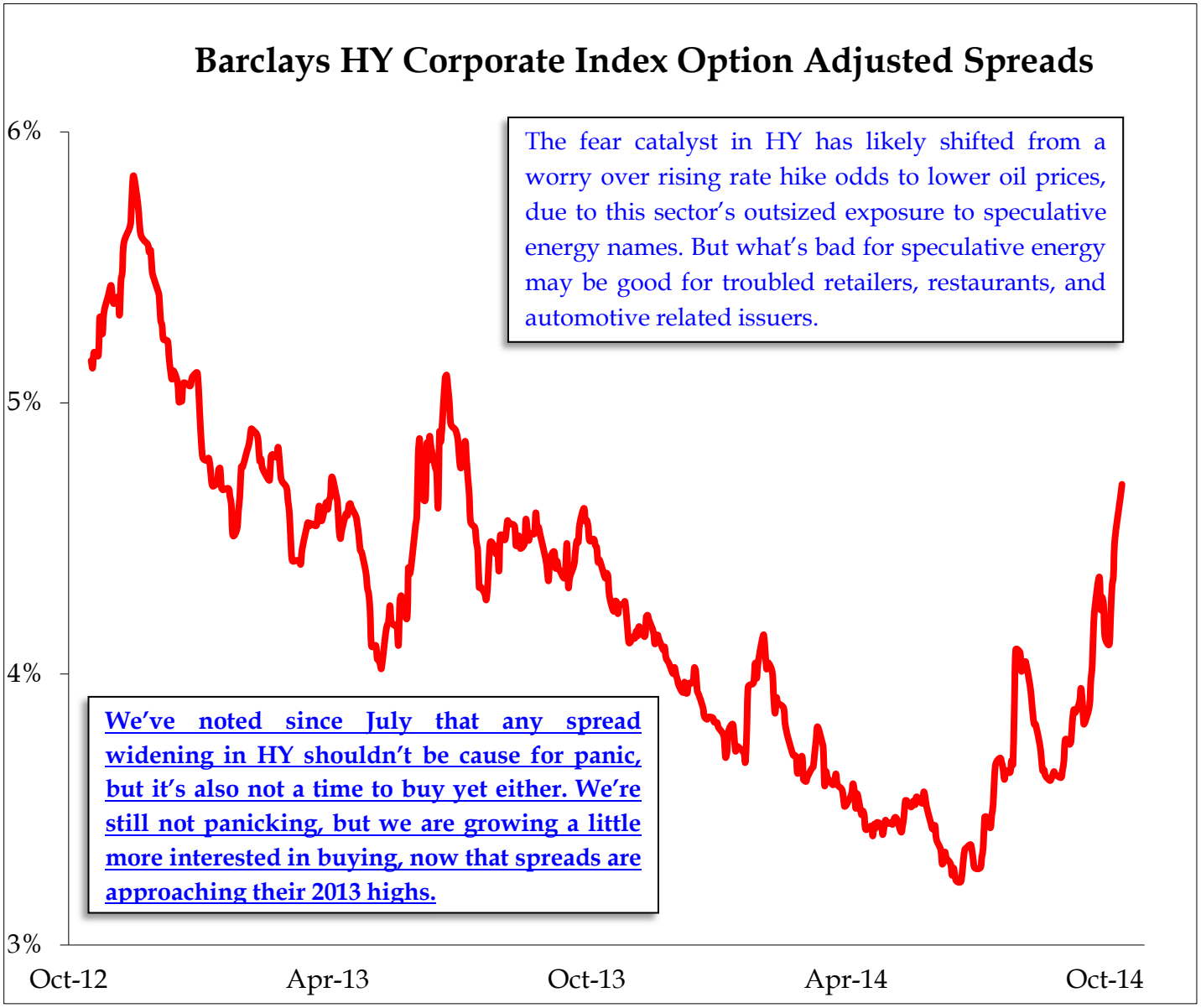
PREPAYS HAVE BEEN RISING AS YIELDS HAVE DROPPED



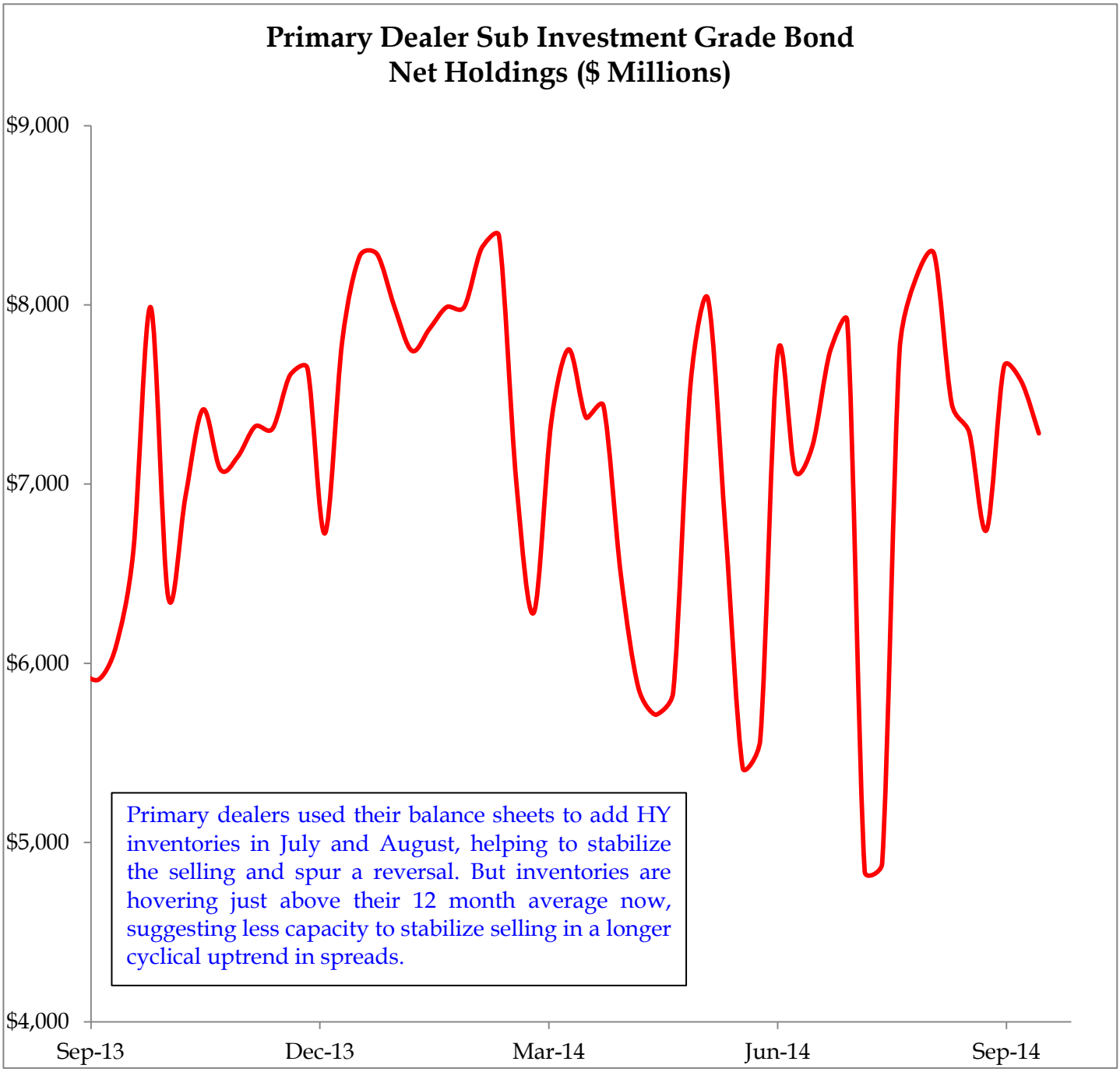
RATE HIKE ODDS PLUNGE WITH INFLATION WORRIES



HY SPREADS STILL PUSHING HIGHER, BUT THE THREAT OF RATE HIKES IS CLEARLY NO LONGER A CATALYST

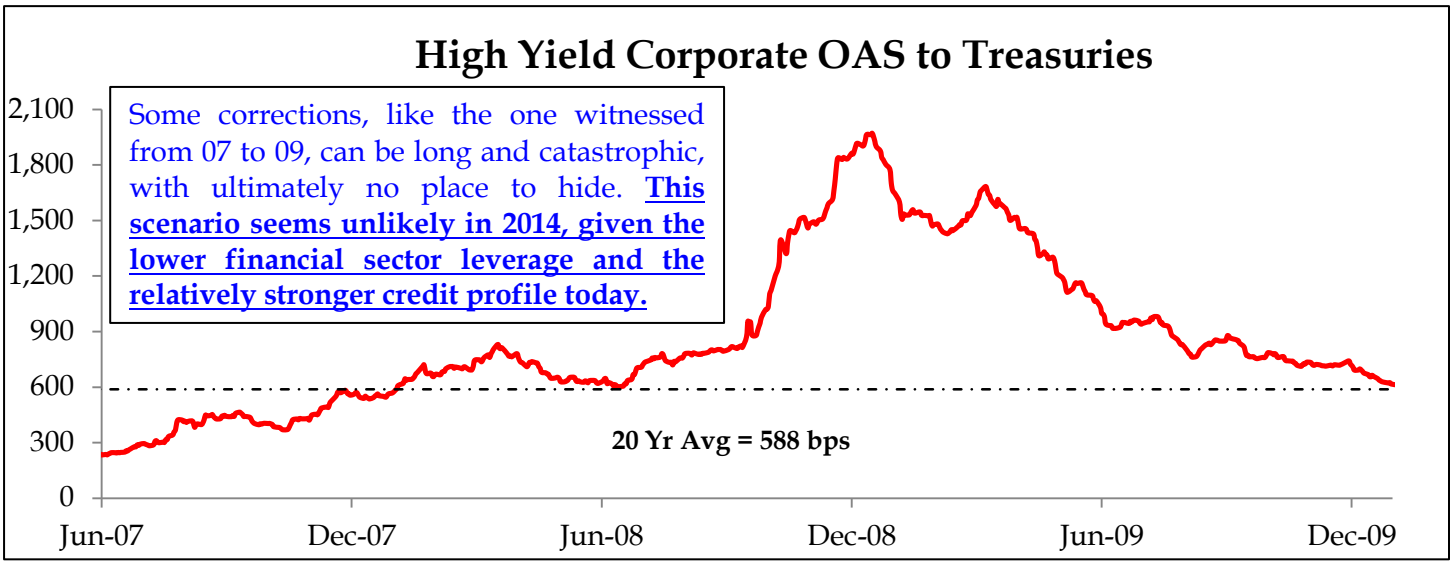


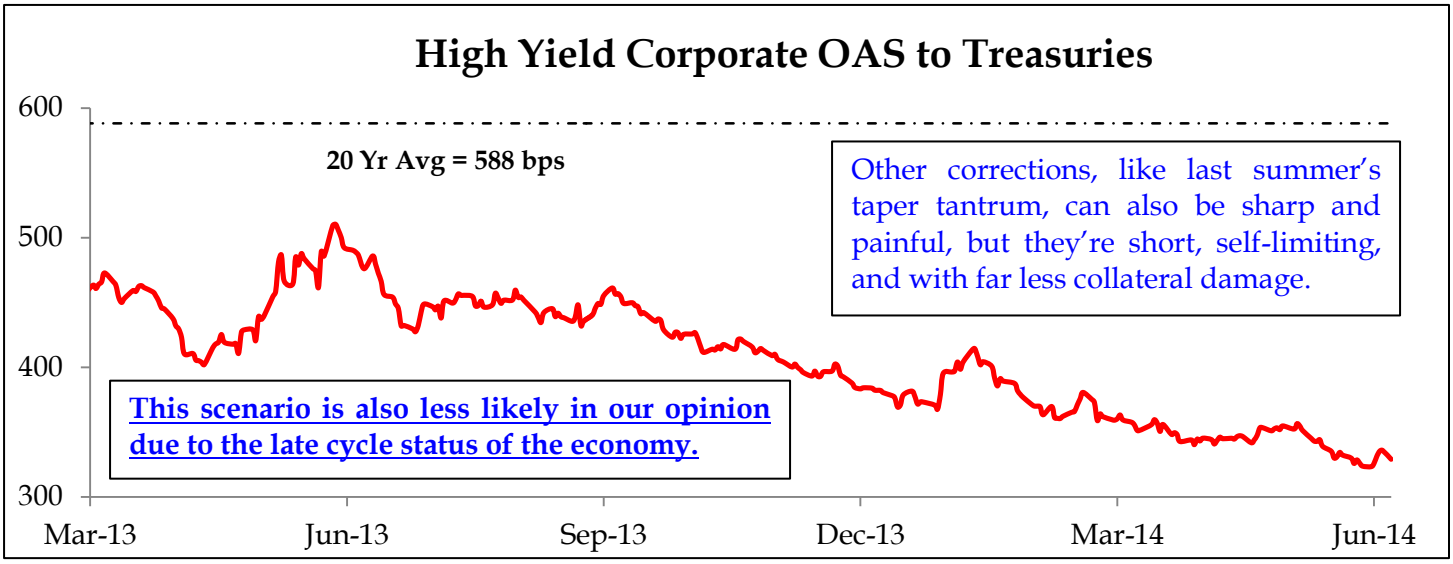
STILL NOT TIME TO PANIC, BUT IS IT TIME TO BUY?

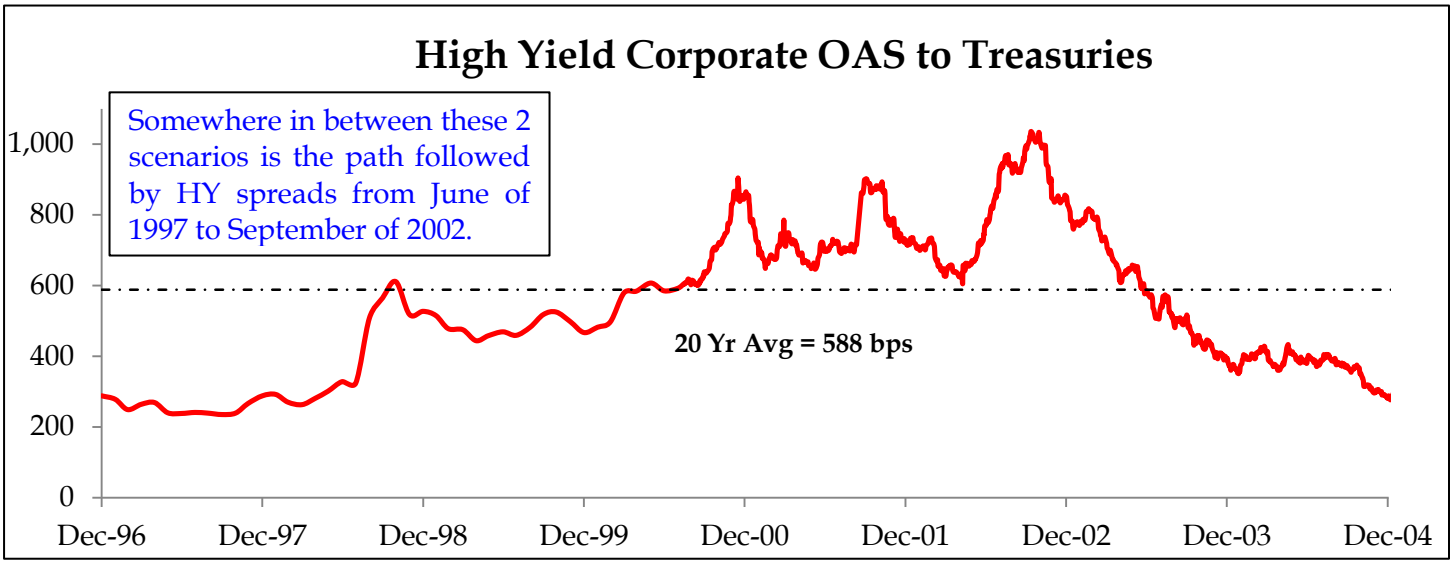


More recent data suggests that in October's selling, dealers did not use their balance sheets to stabilize prices. This game of cat and mouse is likely to keep HY spreads well off their lows for this year, but are spreads cheap enough to buy again?

HY CORRECTIONS COME IN MANY DIFFERENT FLAVORS

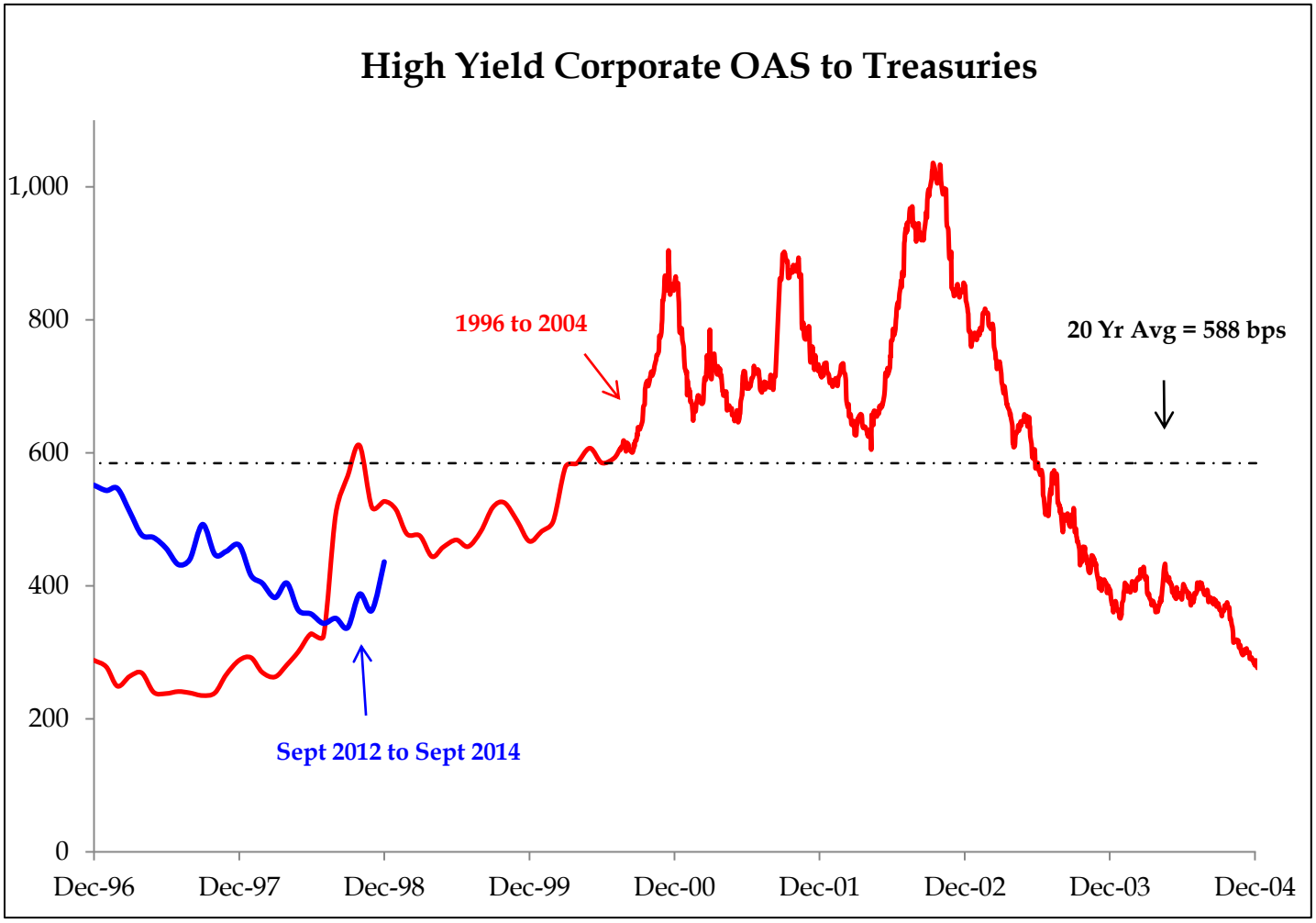






CURRENT PACE OF WIDENING SEEMS SIMILAR TO THE 1997 TO 2002 CORRECTION

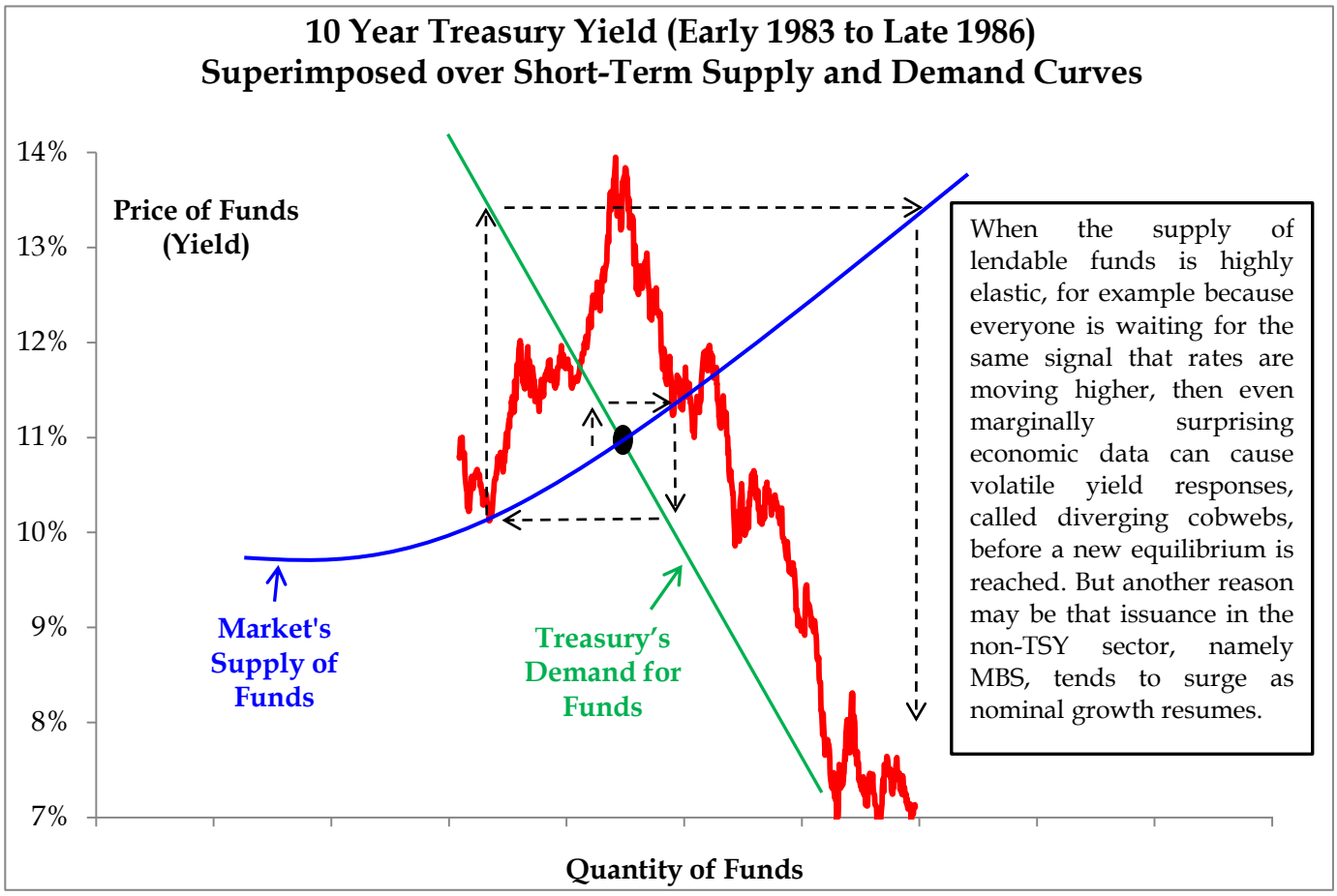
The HY correction from 1997 to 2002 may be most similar to what we expect to see in the coming years, both in causes and in shape. That's not to say that we expect a surge of scandalous defaults to plague the sector by 2018, but rather because we expect to see a 2 to 3 year tightening cycle begin within 12 months, and it seems likely that there may be some nonfinancial sectors more adversely affected than others. Beyond that, the similarities may be limited, but this may still be the best template that we have for the path of HY over the next 3 to 5 years. **This leaves us feeling comfortable that our low duration, higher quality allocation to 2 to 3 yr BB issues is fairly well protected from both spread widening and default risks, but it also means that we're reluctant to add duration at this point, or reach down into lower quality names in more leveraged sectors to pick up yield.**



SO WILL BOND MARKETS REMAIN SERENE FOR Q3?

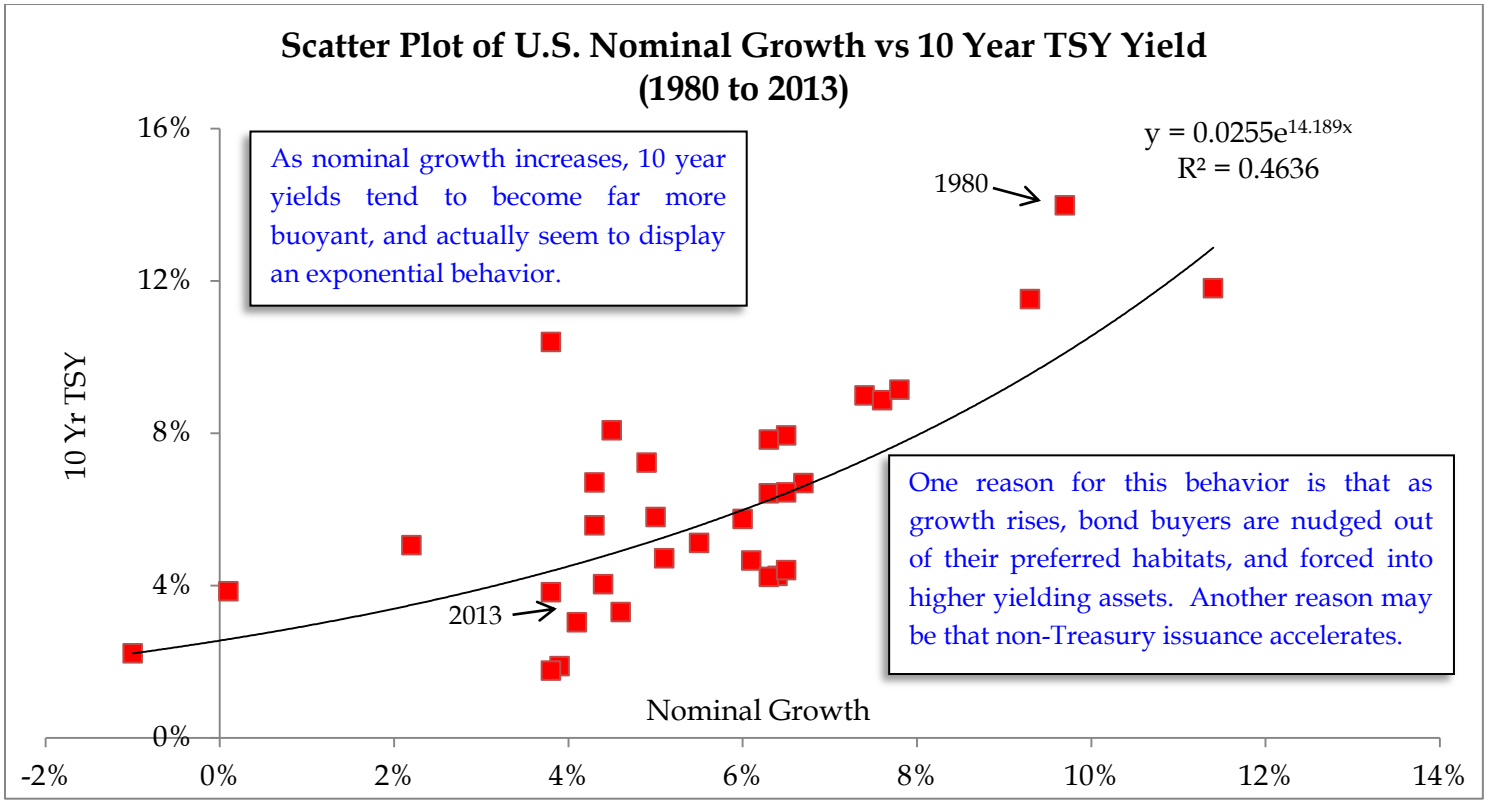
Bond markets are serene, until they're not, and the shock that drives most volatility has been nominal growth surprises. The reason is that the Treasury market can be thought of as a collection of *elastic* buyers (suppliers of lendable funds), and one *inelastic* issuer of debt, the Treasury (the demander of credit). What's more, history seems to suggest that supplier elasticity is itself very sensitive to nominal growth. Plus, nominal growth signals come with a lag, *after* funds have been lent out to the Treasury market for long terms. Thus, when nominal growth surprises, bond yields oscillate wildly up and down in what are referred to as "diverging cobwebs". The taper tantrum last summer was a mild, Fed-induced diverging cobweb. A more violent one occurred in the mid-1980s, as nominal growth surprised to the downside. **If we see a surprise in nominal growth, and if it appears to be sustainable, then bond buyers will once again display this classic elasticity, and yields will likely break out of their low vol zone. Absent this type of shock, it seems that the other major risk to bond markets is an aggressive Fed, though this would more directly affect 2 to 5 year yields and credit spreads.**

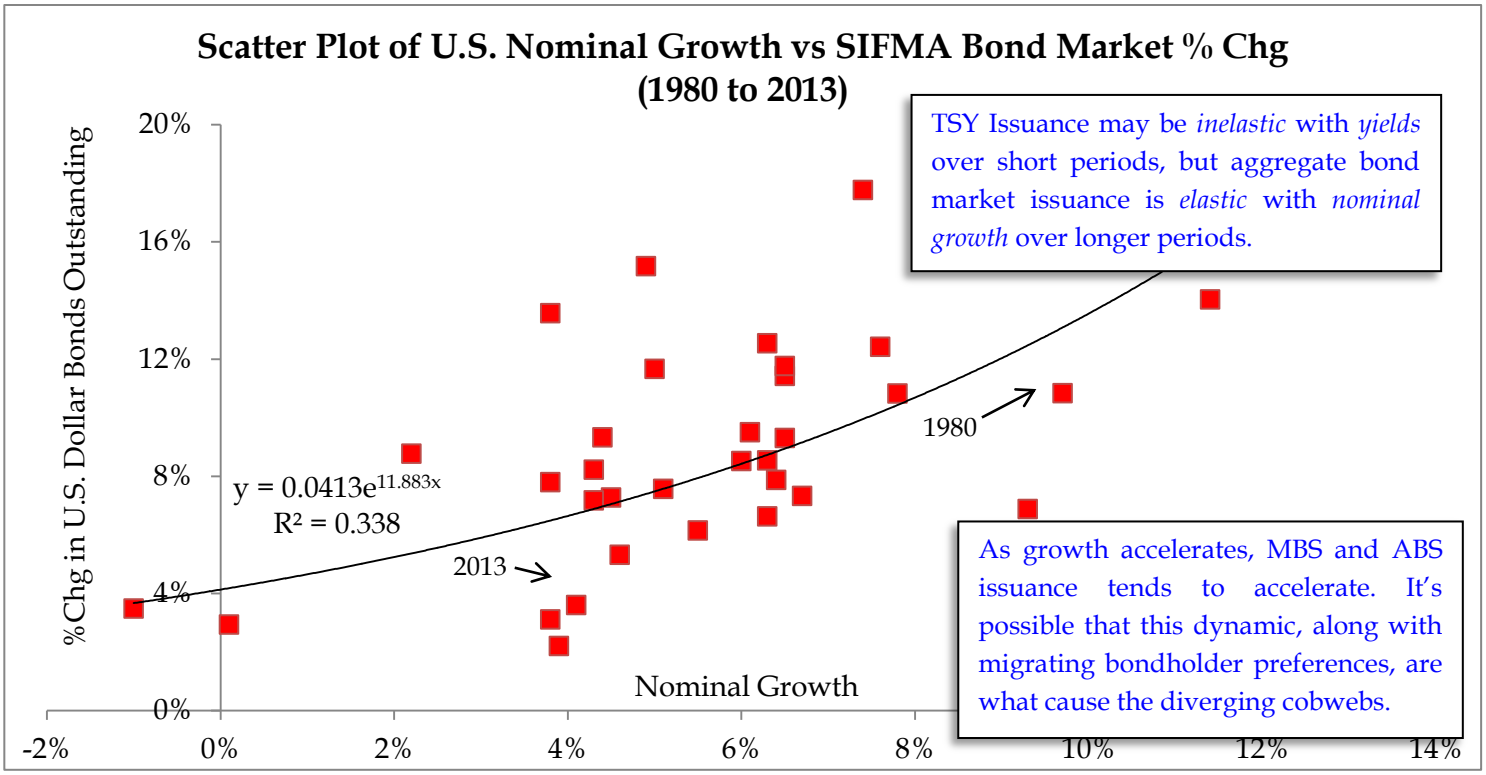
SURPRISING ECONOMIC DATA CAN CAUSE TREMENDOUS YIELD VOLATILITY



A CLOSER LOOK AT WHAT CAUSES VOLATILE JUMPS

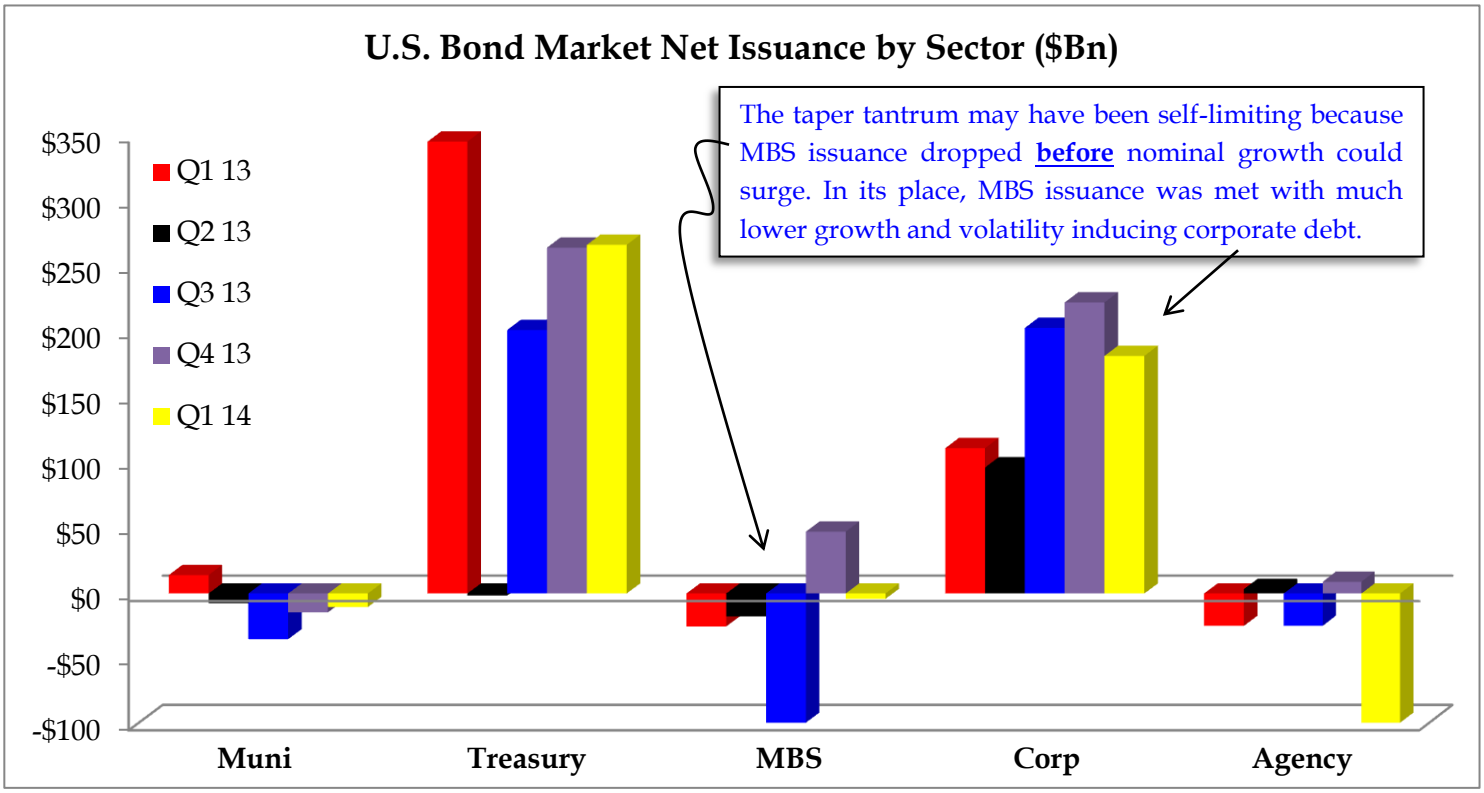
The relationship between 10 yr ylds and nominal growth is not exactly linear; as growth increases, 10 yr ylds increase in a non-linear way. In fact, the relationship seems to be exponential. Is it MBS?





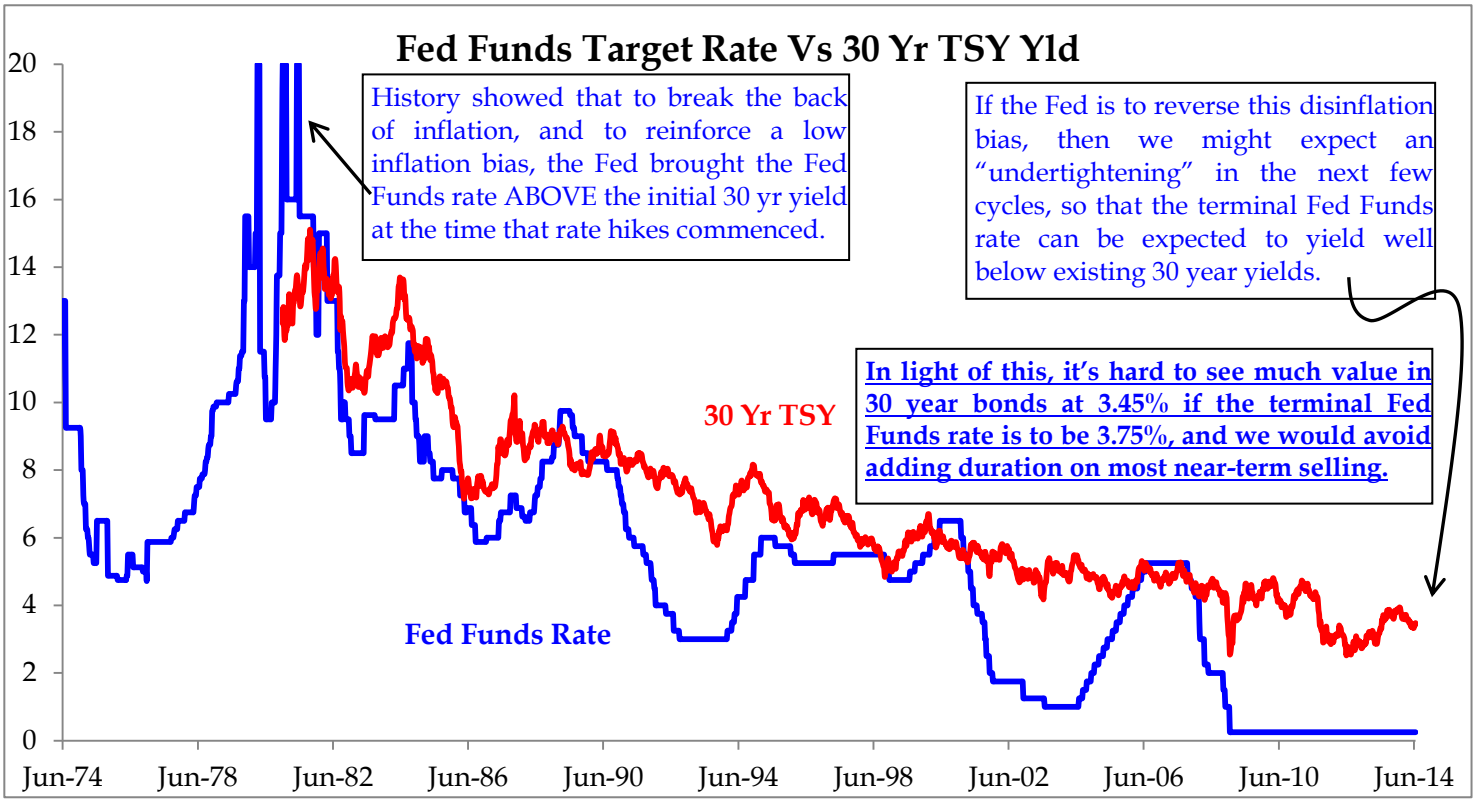
SO WHY HAVEN'T WE SEEN ANOTHER YIELD JUMP SINCE THE TAPER TANTRUM, AND WHY WAS THAT EVENT BRIEF?

Nominal growth is still too low, particularly in light of the pace at which the Fed has been accumulating net new supply of Treasury and MBS. In other words, the opportunity cost of staying in a sector that has had a permanent bid from the Fed is just not high enough when nominal growth is inching around 3% (in truth, the non-linear effects of high nominal growth don't seem to start picking up until growth moves closer to 5%). This also helps to explain why the taper tantrum stalled out; growth slumped and demand reverted back to long duration assets once it did. Another often overlooked factor, and one which we've highlighted in our Treasury Yield Balance Sheet, is that MBS supply collapsed after the taper tantrum. The drop in MBS supply and the related pullback in the housing sector (which likely further reduced nominal GDP) both help to explain why the taper tantrum was short-lived, and why growth decelerated in early 2014. **Simply put, the drop in MBS and agency supply was offset mainly by a steady uptick in corporates and a small uptick in Treasuries, which have less impacts on growth and yields.** So even though the bond market size grew by about 4% in 2013 and a nearly 5% annualized pace in Q1 2014, all of the growth was in lower impact sectors. Specifically, the nominal growth/ issuance relationship seems to be strongest over the past 30 years in the MBS sector, with corporates showing only a slightly positive, and nearly linear relationship between issuance and growth. **This suggests that if yields (and growth) are to move higher, then either MBS issuance will need to pick up (agency and munis too) or businesses will have to start spending more.**

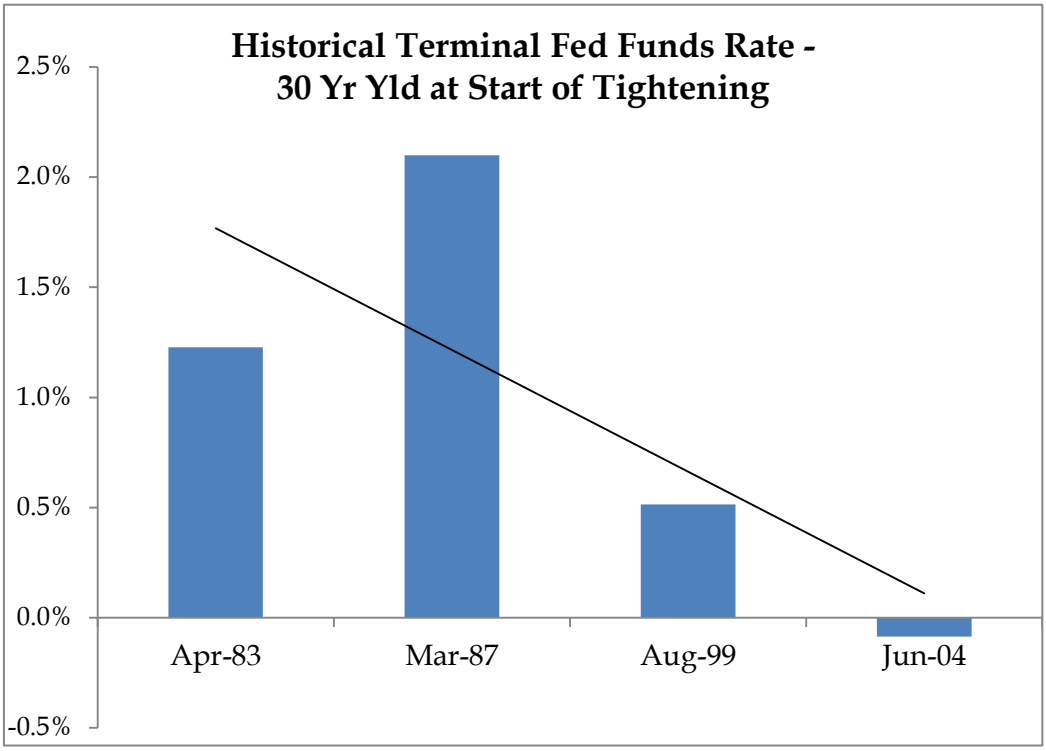


FURTHER FLATTENING NOT LIKELY TO BE KIND TO LONG BONDS, AND WE WOULD AVOID BUYING THE DIPS

There's a view percolating that if the terminal Fed Funds rate is now expected to be somewhere around 3.75%, then a 30 year yield of about 3.30% today is only slightly rich. With a view like this, there's a temptation to reach for yield by adding duration on selloffs, in anticipation that much of the selling pressure over the next 2 years will be inside of 10 years (and maybe even inside of 5 years). **We would disagree with this view and would suggest avoiding adding duration during any near-term selling this summer or fall.** What's more, we'd note that the argument for a 30 year yield that's flat to the expected terminal Fed Funds rate seems to be, at best, a generalization of a long-term average, and at worst, a failure to acknowledge the secular trends that affect 30 year yields. Absent a secular trend, 30 year yields should be about even with the expected *average* Fed Funds rate, plus a premium, or about equivalent to the expected *terminal* Fed Funds Rate. **But in secular disinflation periods, (1980 to 2007) we would expect to see the terminal Fed Funds rate EXCEED the 30 year yield, as multiple cycles of overtightening were the primary cause of disinflation. In contrast, in periods like today, where we're arguable embarking upon a secular reflationary period, we would expect to see an expected terminal Fed Funds rate that's materially BELOW the initial 30 year yield. In other words, if the terminal Fed Funds rate is expected to be 3.75% in the next 3 years, then the 30 year yield should be ABOVE this level today**



IF THE TERMINAL FED FUNDS RATE IS LIKELY TO BE 3.75%, THEN WHERE SHOULD 30 YEAR YIELDS BE NOW



For the past 4 recessions, the premium in the terminal Fed Funds rate relative to the existing 30 year yield at the start of tightening has shrunk down to zero, But to extrapolate this zero premium going forward seems a bit premature in light of Fed concerns that inflation is still too low. **So what should this relationship look like if you're trying to reflate the economy?**

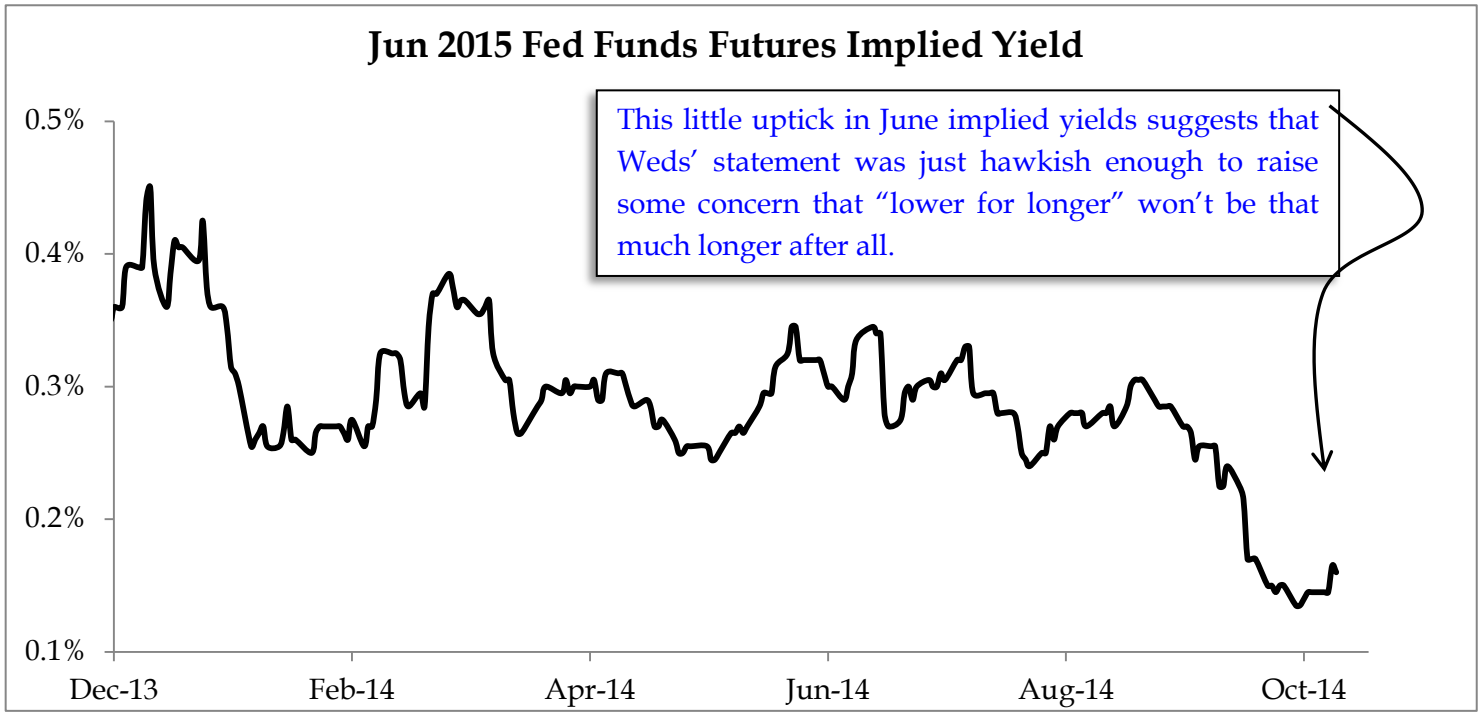
A TERMINAL FED FUNDS RATE OF 3.75% MIGHT IMPLY A CURRENT 30 YEAR YIELD OF AS MUCH AS 4.75%, NOT 3.75%

If it took 100 bps, on average, of EXTRA terminal Fed Funds rate to break the back of inflation over 4 recessions, then it should take about 100 bps, on average, of LESS Fed Funds rate to reflate the economy back to the early 1980s levels. Now, clearly the level of inflation witnessed during the early 80s wasn't an optimal level of price stability, and we would argue that a lower magnitude of reflation is the Fed's ultimate goal. But to achieve this, the terminal Fed Funds rate must be BELOW the rate required for price stability for most, if not all of the current business cycle. And the 30 year yield should reflect the risk that this "undertightening" is inadequate to reign in inflation pressures in one business cycle by currently offering a yield premium ABOVE the expected terminal Fed Funds rate. We would argue that this proper level for the 30 year yield is now around 4% and should migrate towards about 5% when the Fed ultimately begins to hike next year. **So why is our value lower than the 4.75%? Primarily because we don't believe that the terminal Fed Funds Rate will end up being 3.75%. Rather, we expect it will actually be lower, at around 3%, suggesting that the 30 year should be close to about 4% right now.** In either case, 30 year bond yields have a long way to rise before we would consider adding duration at this stage of the cycle.

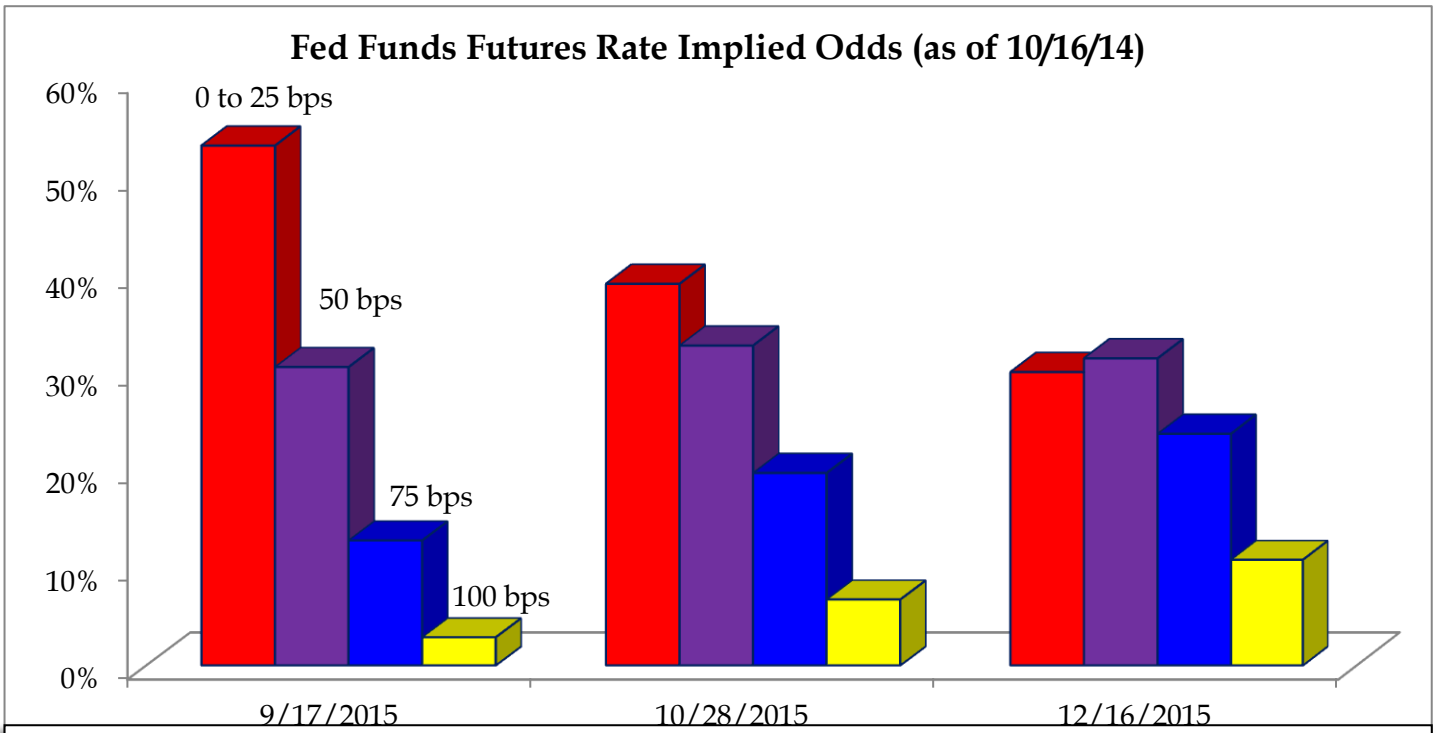
HOW SHOULD WE INTERPRET WED'S FED STATEMENT?

Wednesday's FOMC statement was a good start to the season of madness. There were no real surprises (tapering was concluded, the "considerable time" phrase was retained), but there were also no dovish surprises either (no real growing risks being elevated to the urgent status). As a consequence, it looks like markets have used the ambiguity to pull forward rate hike expectations just a tad from earlier in the week, with Fed Funds futures markets now placing nearly even odds of liftoff coming in either Sept, October, or December (two weeks ago, odds were weighted towards October). As we've noted before, our rate forecasts for 2014 and 2015 are heavily influenced by the expected timing of liftoff, particularly on the front end of the curve. And it's clear from Central Bank guidance and emerging data that June and even July 2015 may be too soon to commence a rate hike campaign. But it's not clear that September is right either. Admittedly, we would argue that a cautious Fed is likely to hike no sooner than a quarter AFTER it's obvious they need to hike. This would suggest that September is probably the best estimate, for now, but as futures markets show, any advantage that September has over October or even December is now razor thin. **In light of this, we're updating our yield forecasts to reflect these lower odds of a June and July liftoff, and we're now using September as a base date for valuation purposes. Among other things, this leaves room for small yield upticks from here to year end across the curve, but it also means that any shift in expected liftoff would likely result in an up or down move of 20 to 30 bps in expected yields across the curve. Stay tuned.**

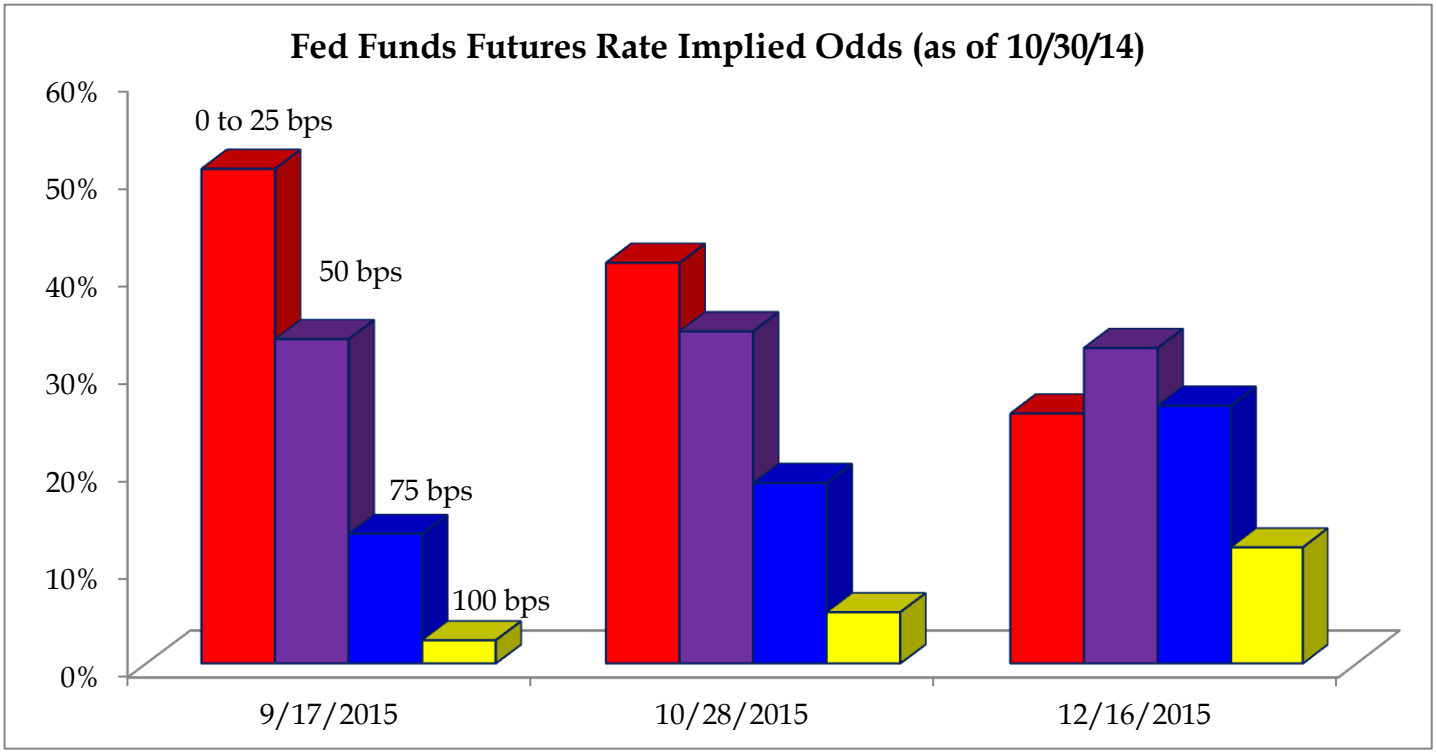
RATE HIKE EXPECTATIONS INCHING BACK UP?



NOTICE A DIFFERENCE? NOT MUCH, BUT IT'S THERE. SEPT THROUGH DEC ARE NOW EVEN ODDS FOR LIFTOFF.



There's been an ever-so-slight shift in odds towards earlier rate hikes (altogether maybe about 5% greater odds). But this now makes Sept to Dec roughly even odds for liftoff. **Forecasting short yields becomes increasingly more difficult when expectations can flip quickly by a full quarter, but for now we're using a September liftoff as a base valuation input.**



STRATEGAS 2014 & 2015 YIELD FORECASTS: WE'RE NOW USING A SEPTEMBER LIFTOFF AS OUR BASE

In our last yield revision, we were generally using a July liftoff date as one of our base inputs, but recent events have made this seem less likely. **Although the odds of Sept, Oct, or even Dec may be fairly even now, we believe that economic data has remained strong enough to suggest further clearing of labor market slack, so that by July of next year rate hikes would be at least feasible, and by September, hikes would be advisable. But our level of confidence in Sept versus Oct, Dec, or even Mar of 2016 is not strong enough to pound the table, which means any material deviation in economic data could easily push yield expectations up or down by 20 to 30 bps across the entire curve.**

	2014			
Maturity	1Q	2Q	3Q	4QF
1 Year	0.11%	0.10%	0.10%	0.15%
2 Year	0.42%	0.46%	0.57%	0.55%
5 Year	1.72%	1.63%	1.76%	1.75%
10 Year	2.72%	2.53%	2.49%	2.45%
30 Year	3.56%	3.36%	3.17%	3.20%

F = End of Period Forecast

2.45% doesn't particularly seem like the proper year-end yield level for the 10 year, but with roughly even odds of a hike in any of the last 3 Fed meetings of 2015, a roughly 2.40% to 2.50% becomes the reasonable target given were inflation expectations currently reside. But if either growth or inflation expectations materially deviate from current levels, then yields across the curve could swing violently again.

	2015			
Maturity	1QF	2QF	3QF	4QF
1 Year	0.25%	0.40%	0.60%	0.85%
2 Year	0.85%	1.15%	1.35%	1.60%
5 Year	2.05%	2.35%	2.55%	2.80%
10 Year	2.75%	2.95%	3.10%	3.30%
30 Year	3.45%	3.65%	3.80%	4.00%

F = End of Period Forecast

The Sector View:

Is it Time to Reach for Yield Again;
Or Should We Keep Duration and Spread Duration Limited, but Otherwise Balanced;
We Would Add Some Investment Grade Spread Exposure on Selloffs,

STRATEGAS Q3 CORE PORTFOLIO ATTRIBUTION

	% of Agg	Strategas Core Wgt	Sector Return
U.S. Aggregate	-----	-----	**0.17%**
U.S. Treasury	35.26%	29.00%	0.34%
Agencies	5.42%	5.50%	0.19%
Corporate	23.28%	26.00%	-0.14%
CMBS	2.13%	2.00%	-0.23%
ABS	0.48%	0.50%	0.01%
U.S. MBS	28.92%	26.50%	0.18%
U.S. HY	0.00%	2.00%	-0.89%
Rising Rate Portfolio	0.00%	5.50%	-3.14%
EMD	0.00%	3.00%	-4.53%
Strategas Core	-----	***100%***	***-0.21%***

In Q3, our Core strategy was hurt predominantly by credit and FX exposure, as the MXN and BRL were hit hard as the dollar rallied and intermediate maturity HY and IG corp spreads inched higher.

STRATEGAS Q3 GO ANYWHERE PORTFOLIO ATTRIBUTION

	% of Strategas Model Core	Strategas Go Anywhere Wgt	Return
Strategas Core	----	----	**-0.21%**
U.S. Treasury	29.00%	22.00%	0.34%
Agencies	5.50%	5.50%	0.19%
Corporate	26.00%	25.00%	-0.14%
CMBS	2.00%	2.00%	-0.23%
ABS	0.50%	0.50%	0.01%
U.S. MBS	26.50%	28.50%	0.18%
U.S.HY	2.00%	3.00%	-0.89%
Rising Rate Portfolio	5.50%	7.50%	-3.14%
EMD	3.00%	6.00%	-4.53%
Strategas Go Anywhere	-----	*100%*	***-0.44%***

Additional exposure to USD convertibles, HY, and EMD hurt the Go Anywhere strategy in Q3

SECTOR STRATEGY: 2014 STRATEGAS CORE PORTFOLIO

Strategas Core Model Portfolio Highlights:

1) Portfolio duration of about 4.5 years (a 1 year short versus the Agg) and slightly short convexity versus the Agg.
2) Underweight Treasuries and agency MBS. Overweight investment grade U.S corps and neutral agencies.
3) Intermediate maturity concentration in U.S. investment grade corporate bucket.
4) Allocations to the following out of index sectors: short duration BB U.S. HY, Australian corporate floaters, LOC Mexico, LOC short duration Brazil, U.S. convertibles, U.S. bank loans, and AAA CLO tranches.
5) Neutral ABS and overweight CMBS, with some exposure to RMBS. We prefer to take structured credit risk in high quality CLOs.

Q4 Updates:

6) Increased exposure to investment grade CMBS to 4%.
7) Decreased Treasury exposure to 25%
8) Added 2% allocation to international basket composed of U.K., Australia, Canada, New Zealand, and Italy.

	% of Agg	Over/Under	Strategas Wgt	OAS	Duration	Convexity	YTM
U.S. Aggregate	**----**	**----**	**----**	**0.43%**	**5.62**	**0.07**	**2.36%**
U.S. Treasury	35.54%	Under	**25.00%**	0.00%	5.34	0.66	1.50%
Agencies	5.27%	Neutral	**5.50%**	0.39%	4.15	0.15	1.75%
Corporate	23.23%	Over	**26.00%**	0.91%	4.41	0.27	2.49%
CMBS	2.04%	Over	**4.00%**	0.99%	4.05	-0.01	2.37%
ABS	0.51%	Neutral	**0.50%**	0.56%	2.48	-0.35	1.39%
U.S. MBS	28.92%	Under	**26.50%**	0.30%	5.01	-1.52	2.88%
U.S.HY	0.00%	Over	**2.00%**	2.50%	1.97	0.02	3.48%
Rising Rate Portfolio	0.00%	Over	**5.50%**	2.64%	0.87	0.00	3.82%
International	0.00%	Over	**2.00%**	1.57%	3.85	0.24	2.57%
EMD	0.00%	Over	**3.00%**	5.56%	2.88	0.11	6.44%
Strategas Core	***-----***	***-----***	***100%***	***0.77%***	***4.46***	***-0.15***	***2.51%***

SECTOR STRATEGY: 2014 GO ANYWHERE PORTFOLIO

Strategas Go Anywhere Model Portfolio Highlights:

1) Portfolio duration of about 4.2 years (shorter than both the Agg and the Core strategy) and slightly shorter convexity.
2) Lower Treasury, and investment grade corporate exposure than the Core strategy, but a higher MBS allocation (due in part to agency MBS IO positions).
3) Higher exposure to HY than the Strategas Core strategy, but still below the typical 5% maximum allocation of most Core fixed income funds.
4) Higher allocation to EMD than the Core Strategy.
5) 7.5% allocation to the Strategas Rising Rate Portfolio (with some additional tolerance for convertibles compared to the Core strategy).

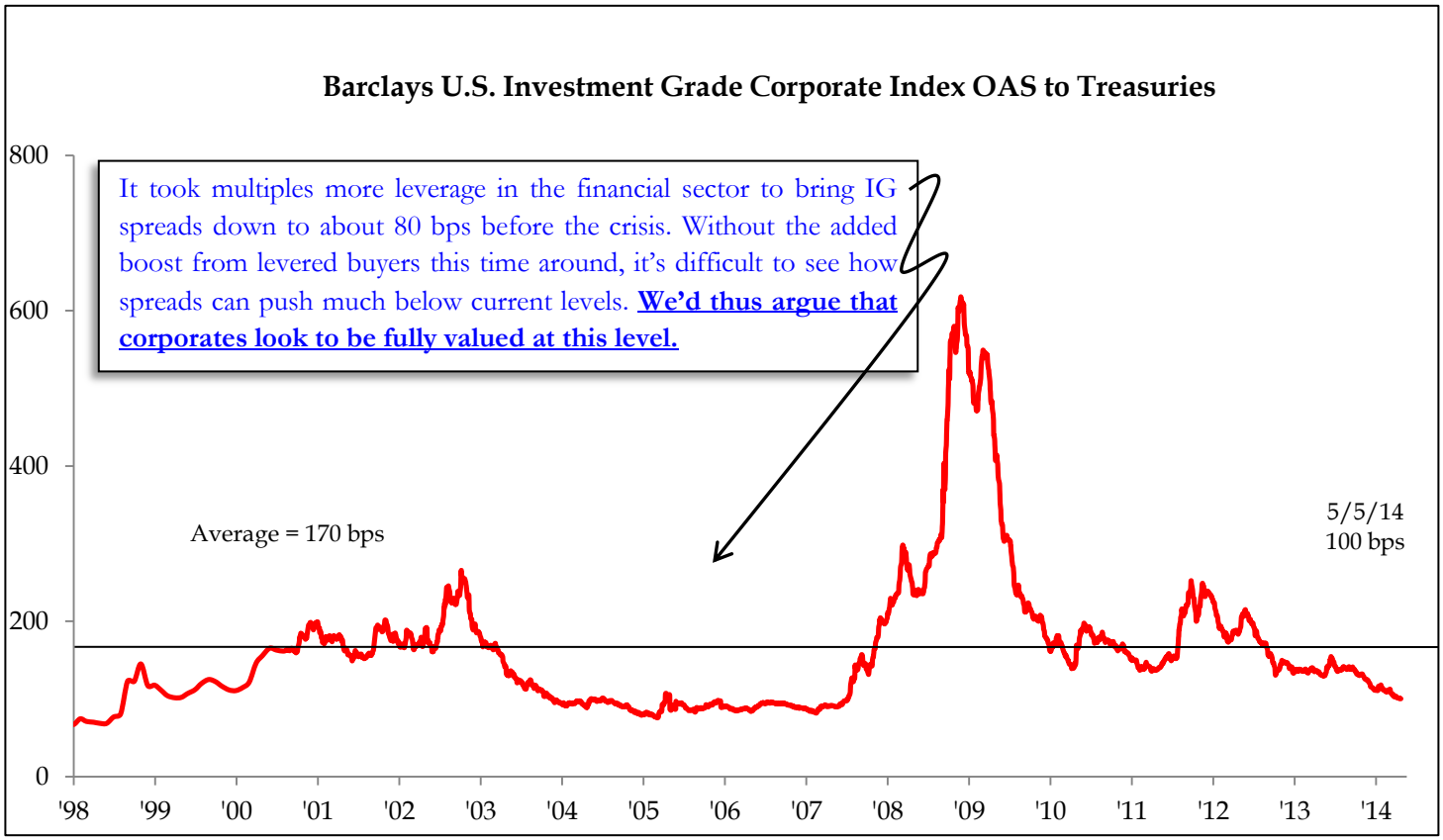
Q4 Updates:

6) Increased IG CMBS exposure to 4%.
7) Reduced Treasury weighting to 15%.
8) Added 5% allocation to international basket composed of U.K., Australia, Canada, New Zealand, and Italy.

	% of Strategas Model Core	Over/Under	Strategas Go Anywhere Wgt	OAS	Duration	Convexity	YTM
Strategas Core	-----	-----	-----	**0.77%**	**4.46**	**-0.15**	**2.51%**
U.S. Treasury	**25.00%**	Under	**15.00%**	0.00%	5.34	0.66	1.50%
Agencies	**5.50%**	Neutral	**5.50%**	0.39%	4.15	0.15	1.75%
Corporate	**26.00%**	Under	**25.00%**	0.91%	4.41	0.27	2.49%
CMBS	**4.00%**	Neutral	**4.00%**	0.99%	4.05	-0.01	2.37%
ABS	**0.50%**	Neutral	**0.50%**	0.56%	2.48	-0.35	1.39%
U.S. MBS	**26.50%**	Over	**28.50%**	0.30%	5.01	-1.52	2.88%
U.S.HY	**2.00%**	Over	**3.00%**	2.50%	1.97	0.02	3.48%
Rising Rate Portfolio	**5.50%**	Over	**7.50%**	2.64%	0.87	0.00	3.82%
International	**2.00%**	Over	**5.00%**	1.57%	3.85	0.24	2.57%
EMD	**3.00%**	Over	**6.00%**	5.56%	2.88	0.11	6.44%
Strategas Go Anywhere	***-----***	***-----***	***100%***	***1.06%***	***4.22***	***-0.24***	***2.77%***

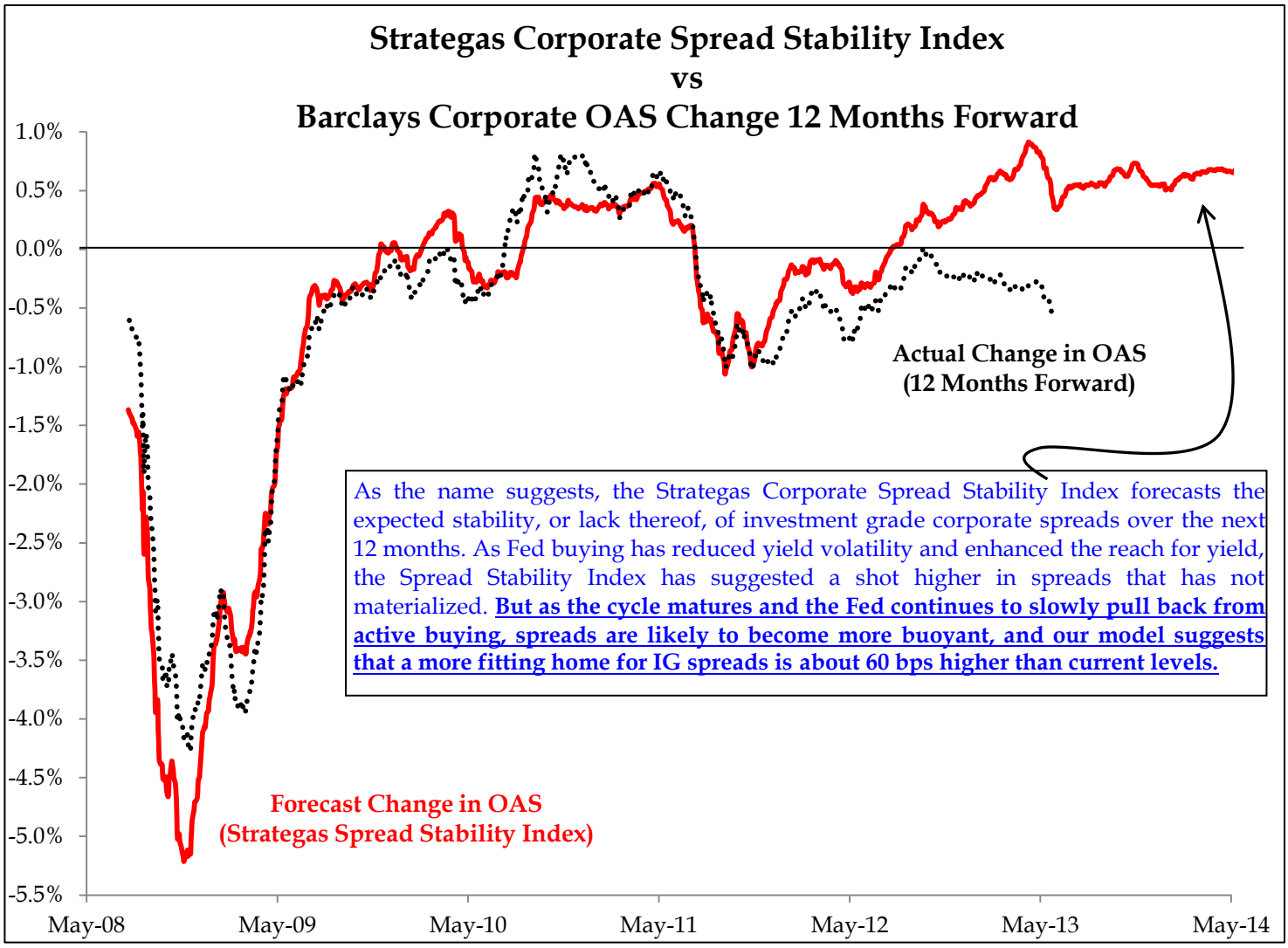
IS CORPORATE CREDIT QUALITY DETERIORATING?

A quick survey of fundamental and market-based indicators shows a mixed picture; some indicators, like spread levels and covenant quality, are flashing clear warning signs, while other indicators, like net debt to enterprise value (or EBITDA), amazingly continue to show improvement (at least for S&P 500 companies). Even still, other indicators, like liquidity measures, are themselves portraying a mixed picture. **Our conclusion is that U.S. corporate credit worthiness IS slowly deteriorating, but not evenly and not sharply. By this we mean that the quality of new issue credits, in particular, is clearly deteriorating, but liquidity has remained ample and debt loads have remained manageable, so that the overall credit quality picture for U.S. investment grade and high yield corporates has been close to flat over the past 3 to 6 months.** It's important to note though that spread is perhaps the best indicator of richness in corporate credits, and this is now pushing below 100 bps for the investment grade index. This, more so than any other indicator, suggests to us that the rally is running out of steam.



IN THE INVESTMENT GRADE SPACE, THE TIME TO REACH FOR SPEAD DURATION HAS PASSED

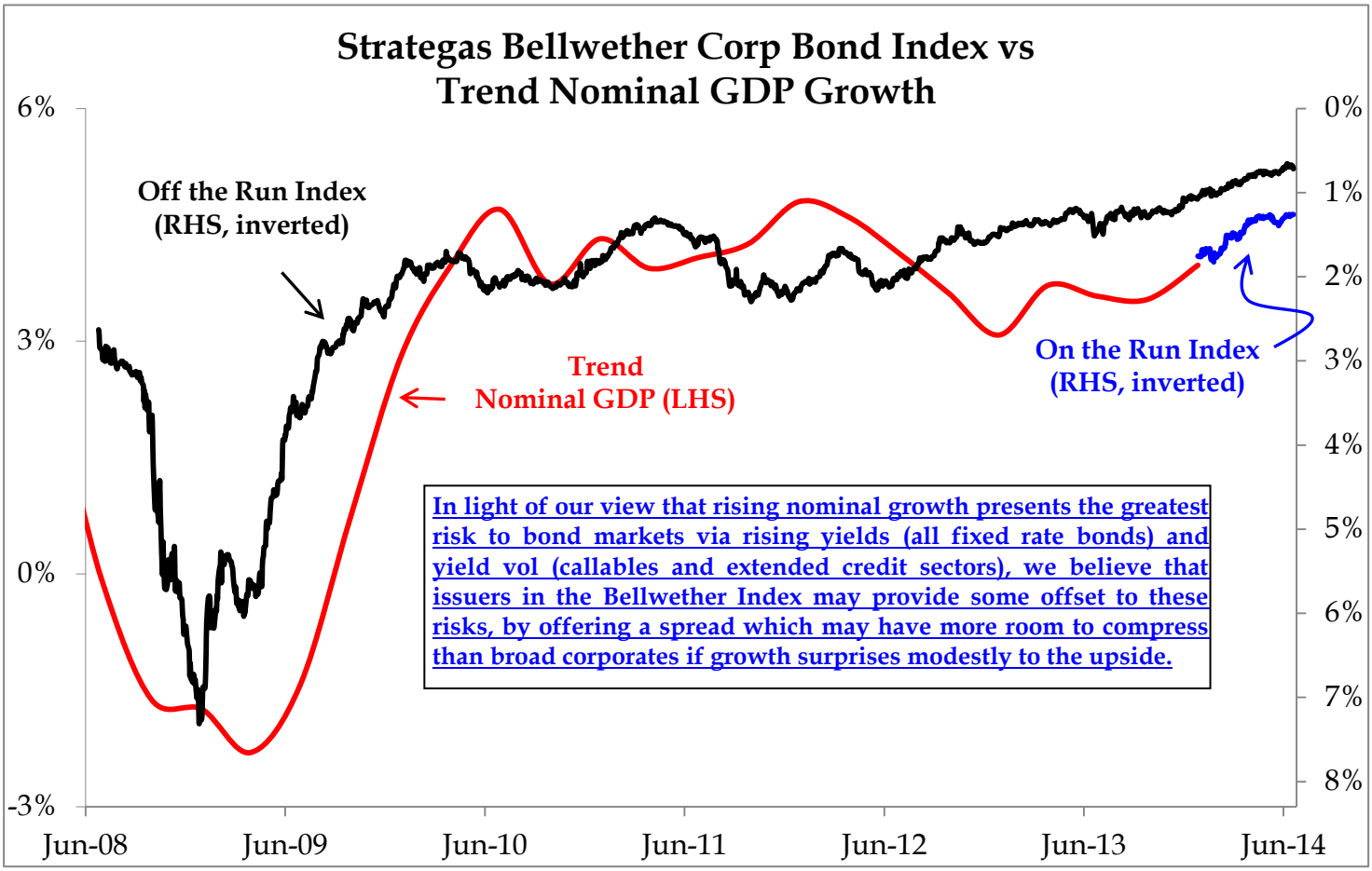
Our mean reversion-based model of the expected trajectory of investment grade corporate spreads has consistently suggested that the proper future home for spreads is likely to be 50 to 60 bps higher than we see today. **With investment grade spreads now below 100 bps, and only about 25 bps above all-time lows, it seems a bit risky to us, without an awful lot of room for reward, to reach for yield by broadly adding investment grade spread duration. Instead, we prefer investment grade exposure in the 3-5 year maturity bucket, with the bulk of this exposure now coming closer to the 4 year part of the curve**.



One alternative to adding broad IG duration might be to add exposures in names with room for further spread compression from earnings which are highly correlated to nominal growth. **The Strategas Bellwether Corporate Bond Index (next page) is a basket of USD paper from issuers fitting this description.**

THE STRATEGAS BELLWETHER CORPORATE BOND INDEX IS ONE ALTERNATIVE TO BROADLY ADDING DURATION

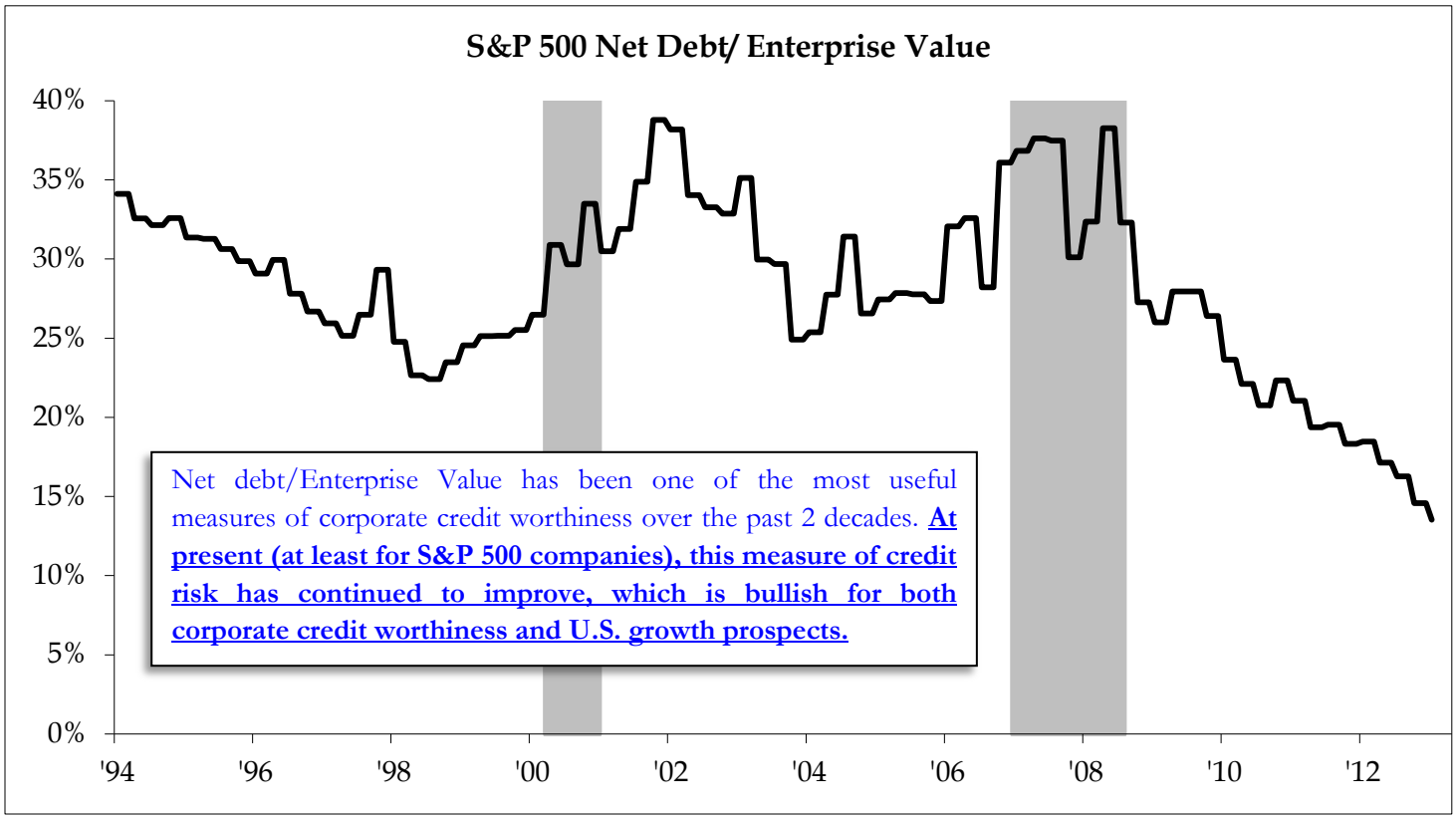
Our Bellwether Corporate Bond Index is a basket of fixed rate, generally non-callable bonds, where the issuers are mostly middle tier credits, and thus the spread is highly correlated with nominal growth expectations. **These indices are suggesting nominal growth of 5% to 5.5% over the next few quarters.**

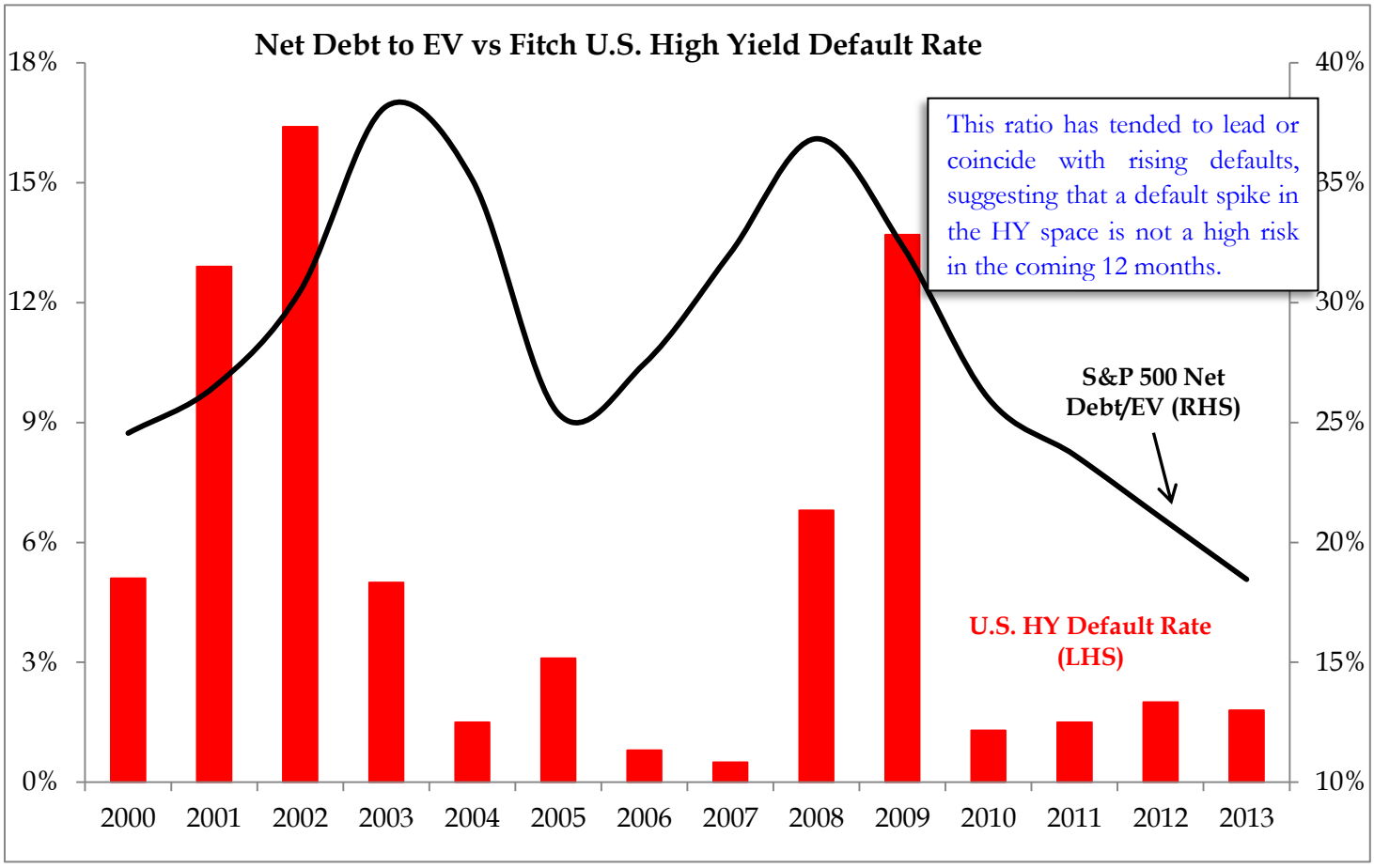


On the Run Index	
Gilead 2.05% 4/1/19	Chesapeake Energy 5.75% 3/15/23
FedEx 4% 1/15/24	Kinder Morgan 4.15% 2/1/24
Union Pacific 2.25% 2/15/19	United Continental 6% 12/1/20
Sabine Pass 5.75% 5/15/24	Advcd Micro Devices 7.5% 8/15/22
Boeing 4.875% 2/15/20	Motorola 3.5% 3/1/23
Metlife 3.6% 4/10/24	Apple 2.4% 5/3/23
Marriott 3.375% 10/15/20	Dover 4.3% 3/1/21
ABBVIE 2.9% 11/6/22	Google 3.375% 2/25/24
Halliburton 3.5% 8/1/23	

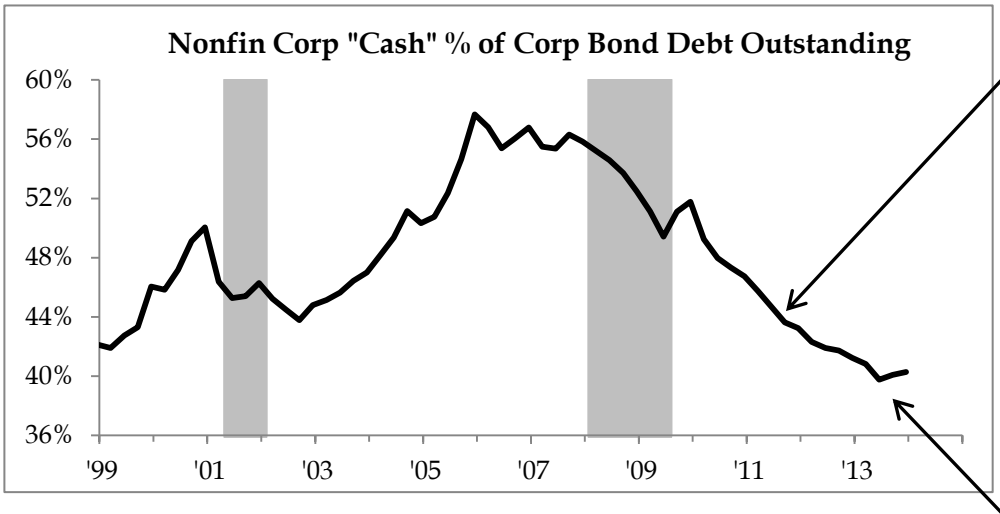
Off the Run Index
FedEx 8% 1/15/19
Marriott 6.375% 6/15/17
Union Pacific 5.65% 5/1/17
Metlife 5% 6/15/15
Chesapeake Energy 7.25% 12/15/18
Kinder Morgan 6% 2/1/17
Southwest Air 5.75% 12/15/16
Motorola 6% 11/15/17
Dover 4.875% 10/15/15

BUT CREDIT FUNDAMENTALS SHOW A LESS BEARISH VIEW

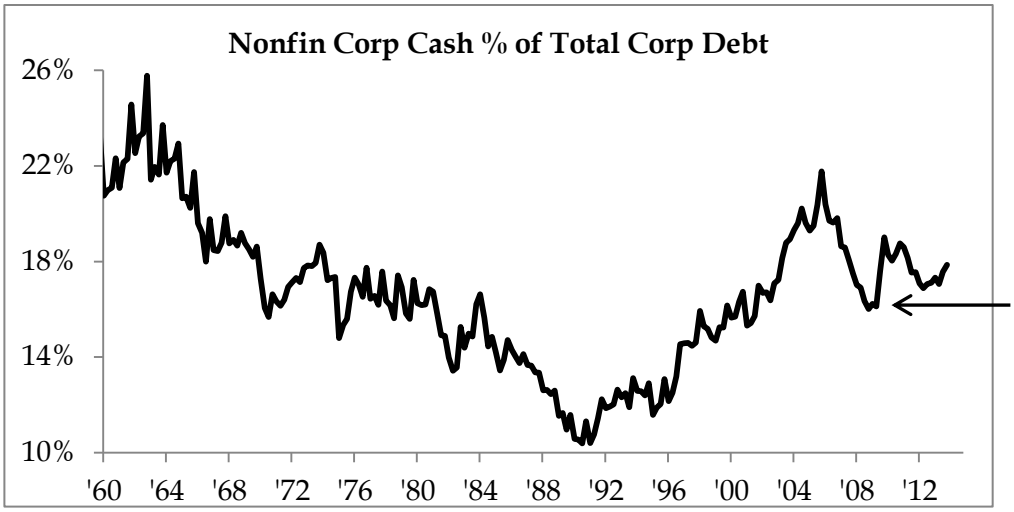




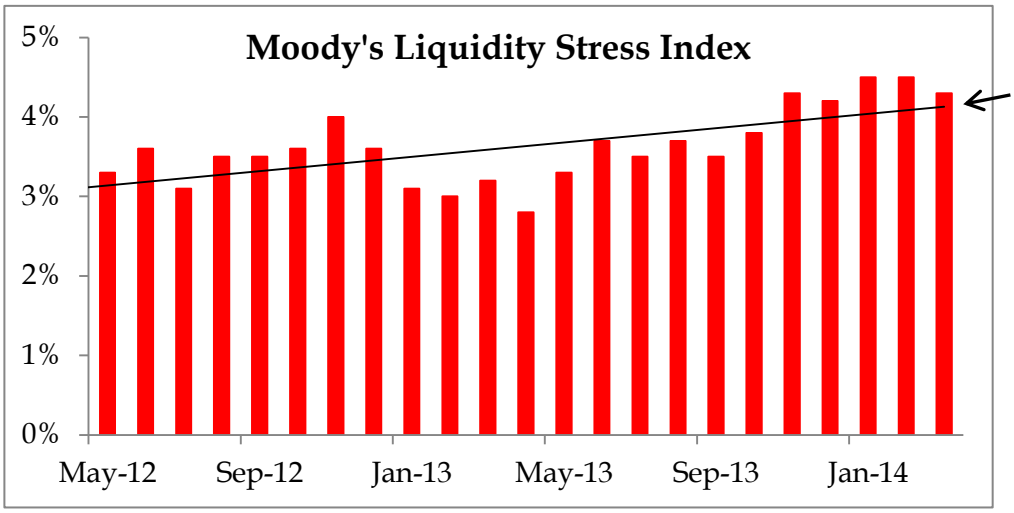
CASH & LIQUIDITY: A MIXED PICTURE, BUT ONE WHICH WE THINK IS STILL SUPPORTIVE OF CREDIT QUALITY



This chart, suggesting that corporate cash has been plummeting as a % of debt outstanding, has caused a stir, as it suggests that firms are building debt without the liquidity reserves to immediately make good on those debts.

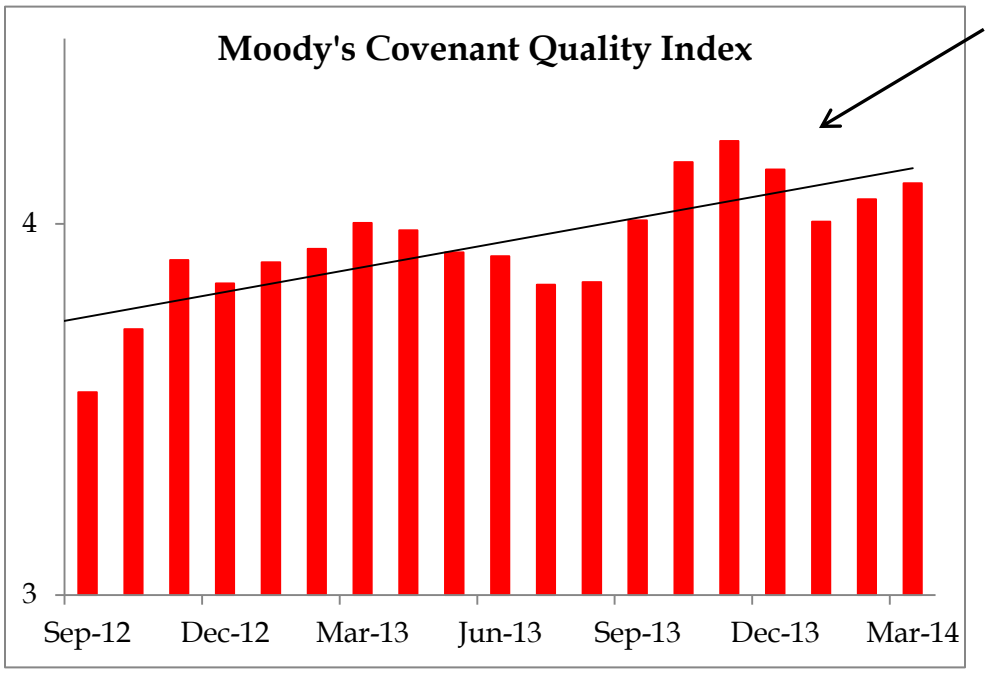


But this measure excludes many cash equivalents (namely US foreign deposits, security repos, and open market assets). When we include these figures, and use total corporate debt (not just debt outstanding), we find a figure that's been rising since 2009, albeit from much lower levels than suggested by the previous chart.

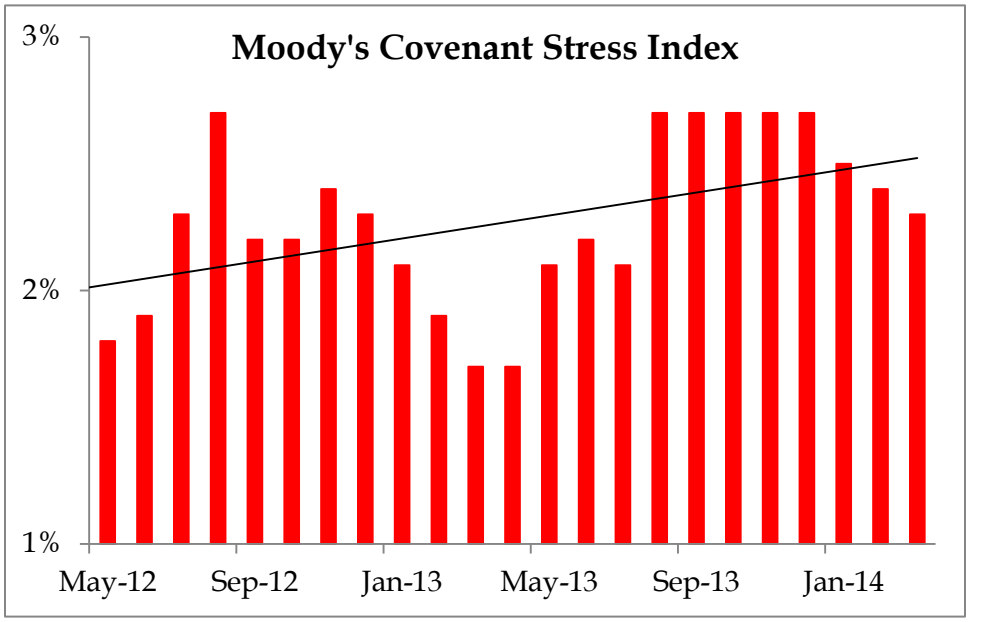


Moody's Liquidity Stress Index suggests that stress has been rising over the past 2 years, though it's well below its average over the past decade of about 7%.

SO WHERE ARE WE SEEING CREDIT DETERIORATION?



Covenant quality has been deteriorating and is bouncing near all-time lows in terms of creditor protections (a higher number means lower protection). Although this is no doubt a concerning chart, it's a fairly short-lived time series (data only back to about 2011) and what's more, there are some reasons to believe that greater borrower flexibility may not be entirely credit negative.



Still, even if we view weaker covenants as entirely credit negative, Moody's notes that covenant stress (when issuers are at risk of violating protections) has been bouncing lower of late, and is well below the average over the past decade of about 6.5%.

STATISTICS AND MAKEUP OF THE STRATEGAS INTERNATIONAL BOND BASKET

Collectively, allocations to these 5 sovereign and corporate curves provide protection against rising inflation in the U.S. and some degree of dollar strength from rising real yields in the U.S. (Italian linkers), rising global inflation and global interest rates (2 to 3 year Canadian and U.K. corps), stagnation in the U.S. (broad non-dollar exposure), stagnation abroad (added duration in New Zealand and Australia), secession risk in Scotland and Quebec (corporate exposures in the U.K. and Canada and exposures to New Zealand and Australia) and protection against a continuation of the status quo of low vol sluggishly improving U.S. and global growth (from ≈ 15 bps of yield carry versus the Barclays Agg index. In light of the news on China, we're suggesting a small move into this international basket, with Core accounts adding about 2% to 3% at first and Go Anywhere strategies adding up to 5%, with the allocations coming largely from U.S. Treasuries. **The recommended composition for this fund would be 30% 2 to 3 yr U.K. corps, 10% Italian 10 yr inflation linked notes, 10% New Zealand 5 yr government notes, 30% 2 to 3 yr Canadian corps, and 20% Australian 5 year corps.**

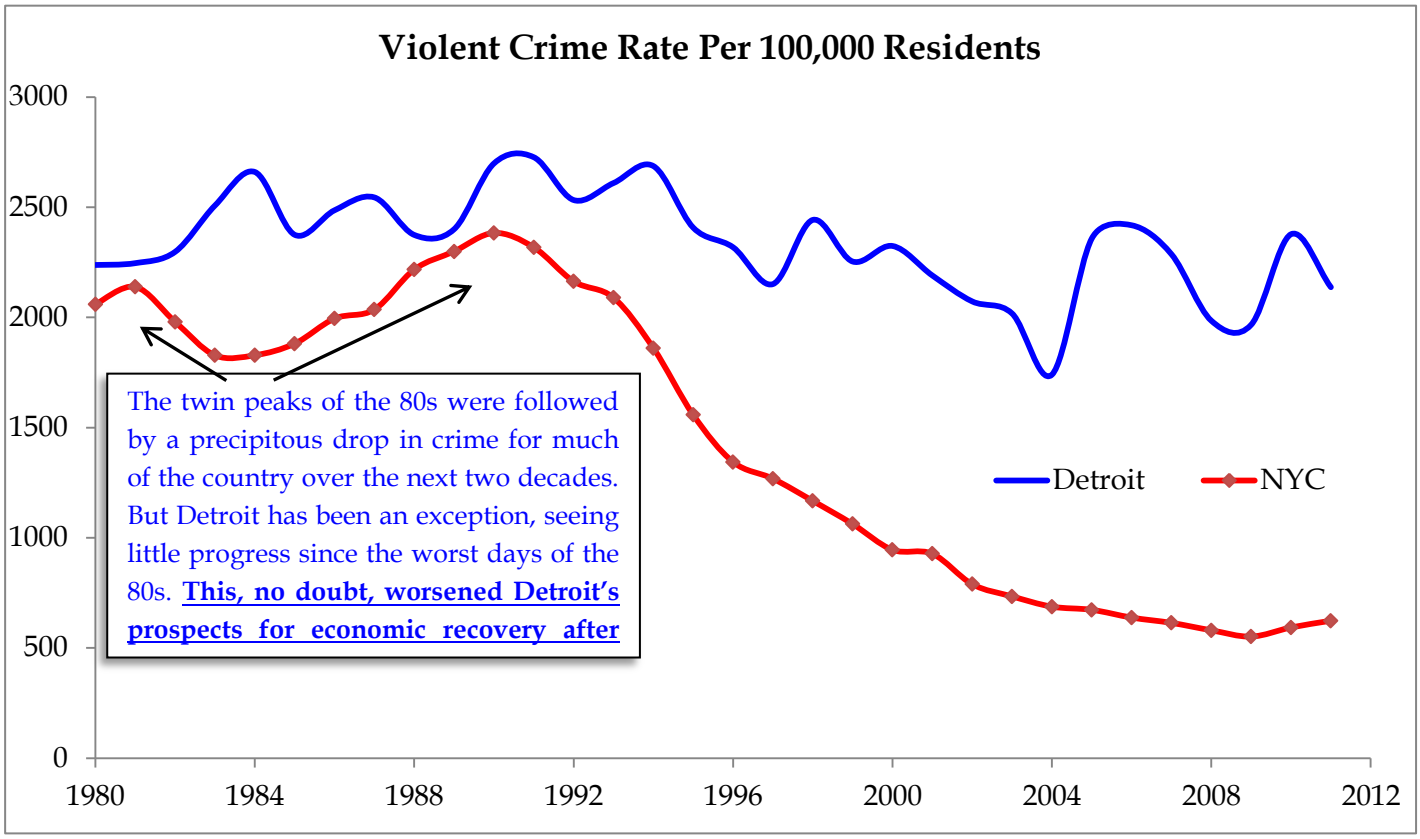
STRATEGAS INTERNATIONAL BOND BASKET BY THE NUMBERS

	Barclays Agg	International Bond Basket
Duration	5.68	2.85
Yield	2.39%	2.53%

BEWARE THE HILL STREET SYNDROME: CRIME AND DEBT A TOXIC BREW FOR CITIES

Is the lesson from Detroit as simple as high crime and overburdened tax bases are a toxic mix? **That is to say, after all the legal and econometric studies on Detroit's bankruptcy have been peer-reviewed, will the final conclusion be just a modified version of the Reinhart and Rogoff hypothesis; that there's some combination of debt AND crime that permanently impairs growth?** In deference to the Captain Frank Furillo and his cast of regulars in the Hill Street Precinct, we've frequently referred to this phenomenon as the "Hill Street Syndrome". With Detroit finally having succumbed to the syndrome, we wonder if there are other large American cities which are following close behind. **Thankfully, it appears for now that the answer is no, as even among distressed cities, Detroit may have been an outlier.** Nonetheless, there are other cities, along with their surrounding satellite communities, which are pushing closer to the event horizon which swallowed Detroit, and perhaps most importantly, these risks don't appear to be priced into the GO bond market.

A TALE OF TWO CITIES



LET'S BE CAREFUL OUT THERE!

Personal Crime Rates Per 100,000 Residents				
City	Population	Violent Crime Rate	Robbery	Aggravated Assault
Detroit, Michigan	713,239	2,137	696	1334
St. Louis, Missouri	320,454	1,857	664	1099
Oakland, California	395,317	1,683	851	754
Memphis, Tennessee	652,725	1,584	472	1032
Atlanta, Georgia	425,533	1,433	551	827
Baltimore, Maryland	626,848	1,417	552	780
Cleveland, Ohio	397,106	1,366	795	464
Buffalo, New York	262,484	1,238	556	623
Kansas City, Missouri	461,458	1,200	361	758
Miami, Florida	404,901	1,198	494	663

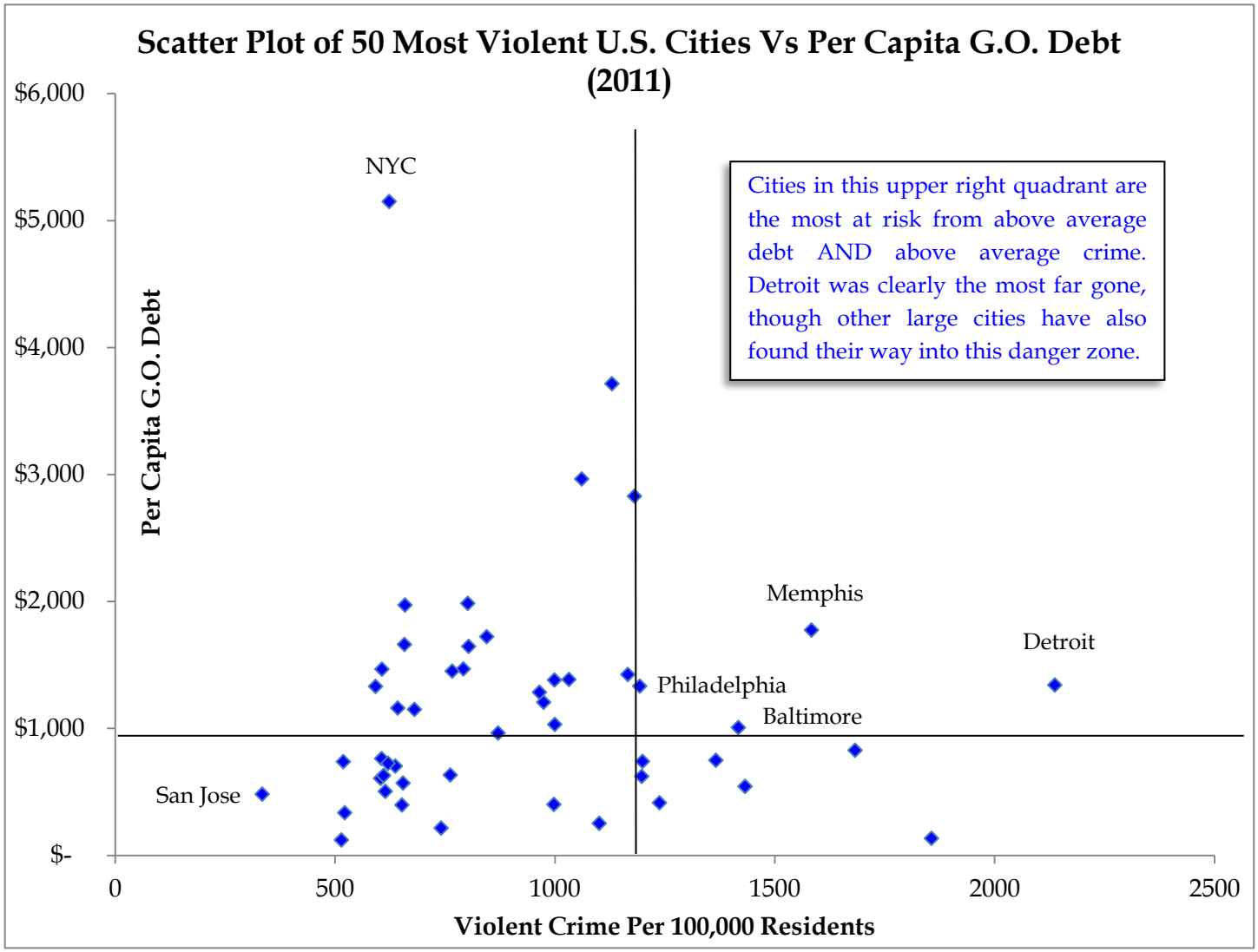
Detroit was the leader in the category of violent crime in 2011, but it was by no means an outlier. **Other troubled Midwestern and Southeastern cities face daunting violent crime problems that will consume city services, and potentially serve as a "senior tranche" to bondholders**

Property crime rankings in 2011 show the same general cast of characters, with a slightly different ordering. **High rates of property crime, by definition, impair the primary revenue streams of many city and county governments, and pose a threat to future budgets.**

Property Crime Rates Per 100,000 Residents				
City	Population	Property Crime	Burglary	Motor Vehicle Theft
St. Louis, Missouri	320,454	8,010	2189	1051
Atlanta, Georgia	425,533	7,084	1762	1262
Cincinnati, Ohio	297,160	6,886	2246	429
Memphis, Tennessee	652,725	6,489	2031	526
Cleveland, Ohio	397,106	6,377	2696	1031
Columbus, Ohio	787,609	6,227	1926	459
Detroit, Michigan	713,239	6,144	2242	1594
San Antonio, Texas	1,355,339	5,967	1131	435
Oklahoma City, Oklahoma	586,208	5,819	1681	692
Miami, Florida	404,901	5,661	1270	667

WHEN CRIME RATES ARE COMBINED WITH DEBT BURDENS, DETROIT STANDS ALONE

The combination of high crime, and high per capita debt may be the toxic mix that cripples any city's fiscal recovery plans. **In the case of Detroit, the high crime alone wasn't that much of an outlier, but when combined with the city's also high per capita indebtedness[4], Detroit can easily be seen as an extreme case.** Nonetheless, many key U.S. cities are also in the wrong quadrant of combined crime and debt, most notably Baltimore, Philadelphia, and Memphis, with Oakland, Newark, Nashville, and a host of others bordering on the danger zone.



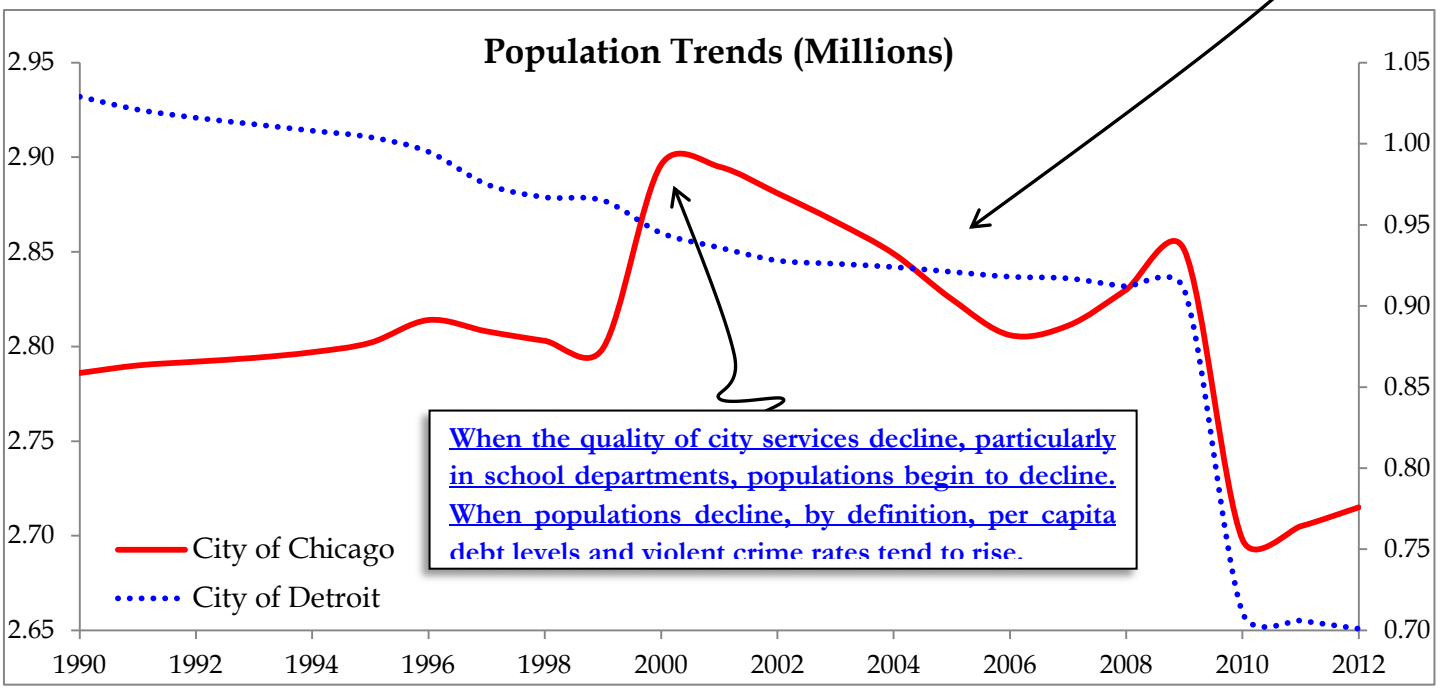
1) Here we've estimated per capita indebtedness using just General Obligation debt from the most recently available Comprehensive Annual Financial Reports for each of the 50 most violent cities on the list. Of note, some cities on the list have no G.O. debt.

TODAY ON THE BASIS OF UNFUNDED PENSION OBLIGATIONS, CHICAGO IS NOT ALONE

General Fund and Pension Deficits (Dollars per Person, Most Recent Financials)

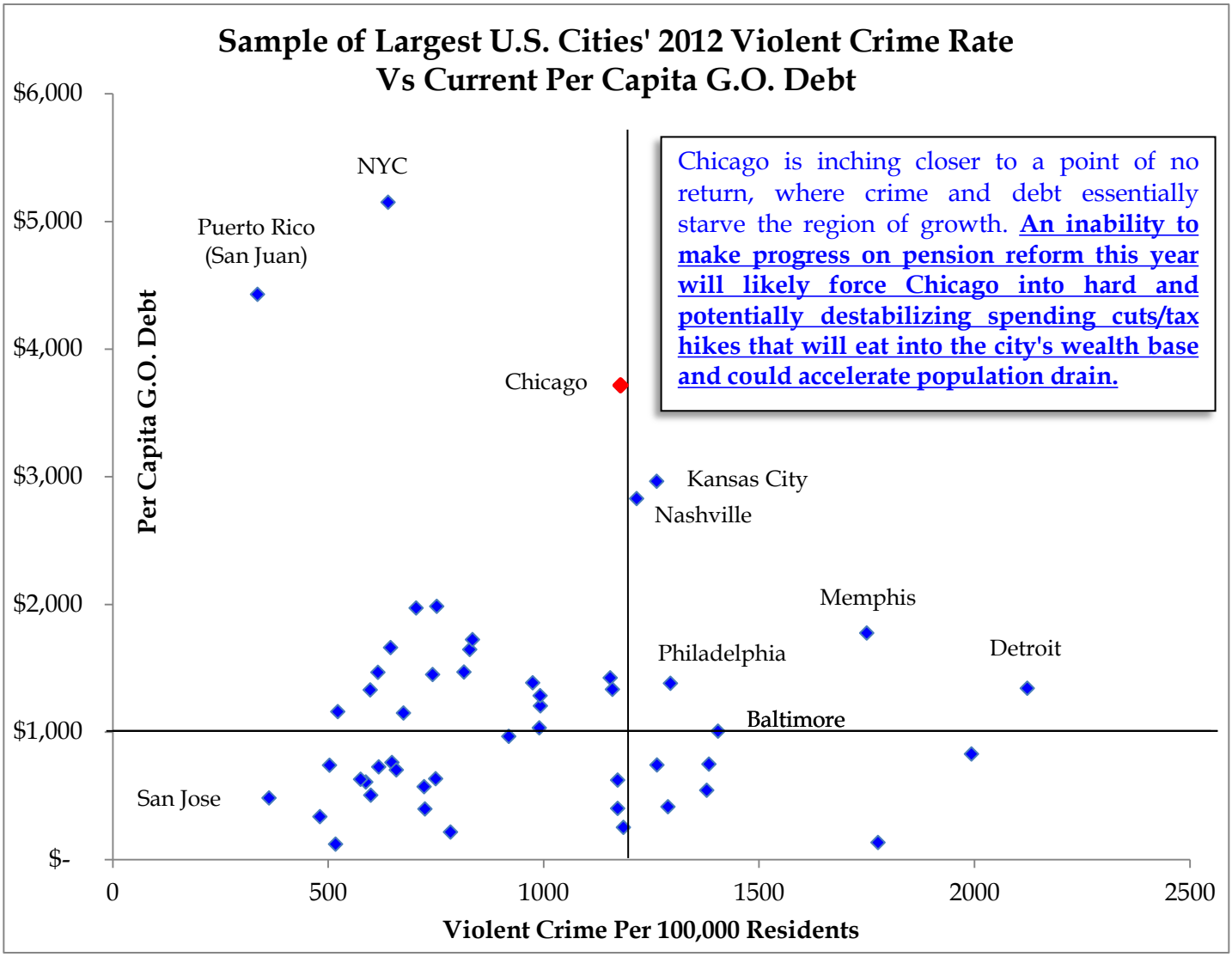
City	Per Capita General Fund Surplus (Deficit)	Per Capita Unfunded Pension Obligation	City	Per Capita General Fund Surplus (Deficit)	Per Capita Unfunded Pension Obligation
NYC	$733	-$8,761	MEMPHIS	$12	-$1,329
CHICAGO	-$59	-$7,158	KANSAS CITY	$112	-$1,288
PROVIDENCE	$589	-$5,162	HOUSTON	$73	-$1,198
BOSTON	$85	-$4,491	ST. LOUIS	-$93	-$1,144
ATLANTA	$84	-$4,424	OAKLAND	$249	-$1,082
PHILADELPHIA	-$45	-$3,364	INDIANAPOLIS	-$73	-$1,016
CINCINNATI	-$26	-$2,901	FT WORTH	-$46	-$989
SAN FRANCISCO	$684	-$2,811	NASHVILLE	$67	-$871
LOS ANGELES	$69	-$2,438	DENVER	$23	-$816
BALTIMORE	$119	-$2,222	MILWAUKEE	-$24	-$325
PITTSBURGH	$329	-$2,005	TULSA	$18	-$283
SEATTLE	$466	-$1,844	WICHITA	-$7	-$279
MIAMI	$164	-$1,711	SAN ANTONIO	$9	-$249
HARTFORD	$316	-$1,604	ANCHORAGE	-$14	-$243
NEW ORLEANS	-$70	-$1,600	CHARLOTTE	$56	-$156
SAN JOSE	$51	-$1,559	OKLAHOMA CITY	$77	-$135
DALLAS	$18	-$1,374	WASHINGTON, DC	$696	$409

Chicago's pension plight is by no means unique, but the city's unfunded obligation is certainly one of the largest, and it's been compounded of late by general fund weakness. Items like this suggest that hard decisions will need to be made regarding spending to meet mandatory contribution requirements, and that can be a catalyst for urban flight.



When the quality of city services decline, particularly in school departments, populations begin to decline. When populations decline, by definition, per capita debt levels and violent crime rates tend to rise.

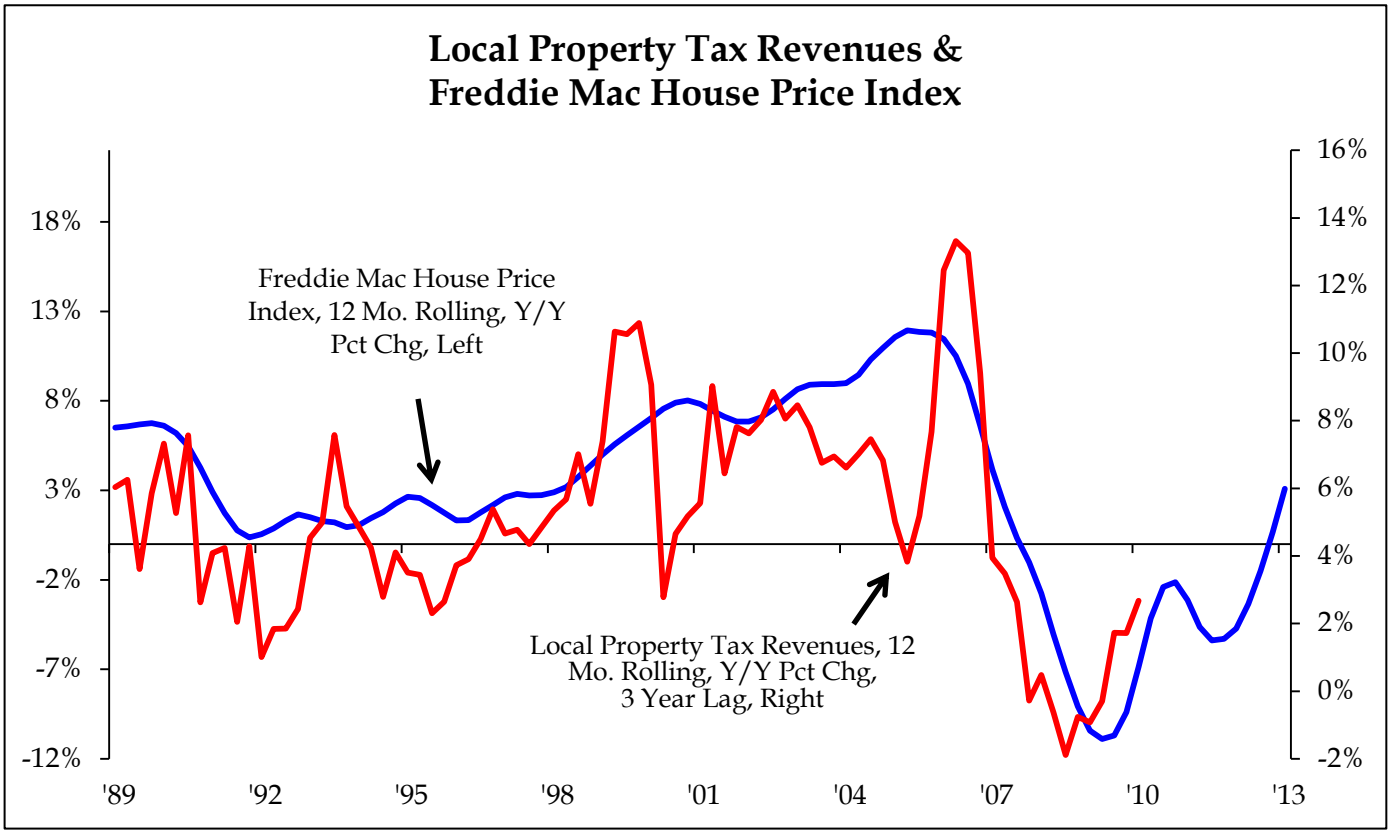
2012 CRIME STATISTICS SHOW CHICAGO IS ENTERING THE DANGER ZONE



The torch is seemingly being passed from Puerto Rico, to Chicago, as the primary headline risk for the muni market in 2014 and beyond. This isn't a exactly the title that the Windy City wants these days, but it's a title that seems to fit, given the city's tremendous social and media presence and the destabilizing forces that are now converging on it. This isn't to say that Chicago should be compared to Puerto Rico (or Detroit) in terms of credit quality, long-term growth prospects, or just plain attractiveness as a muni holding; **rather, the city of Chicago is now in the same spotlight that was once held by these aforementioned issuers, and every policy move will be scrutinized, while the benefit of the doubt may no longer be given to the city's leaders when politics fail to deliver immediate solutions.**

THERE IS A SILVER LINING FOR THE CITIES THAT AREN'T AS FAR GONE AS DETROIT; RISING PROPERTY TAXES

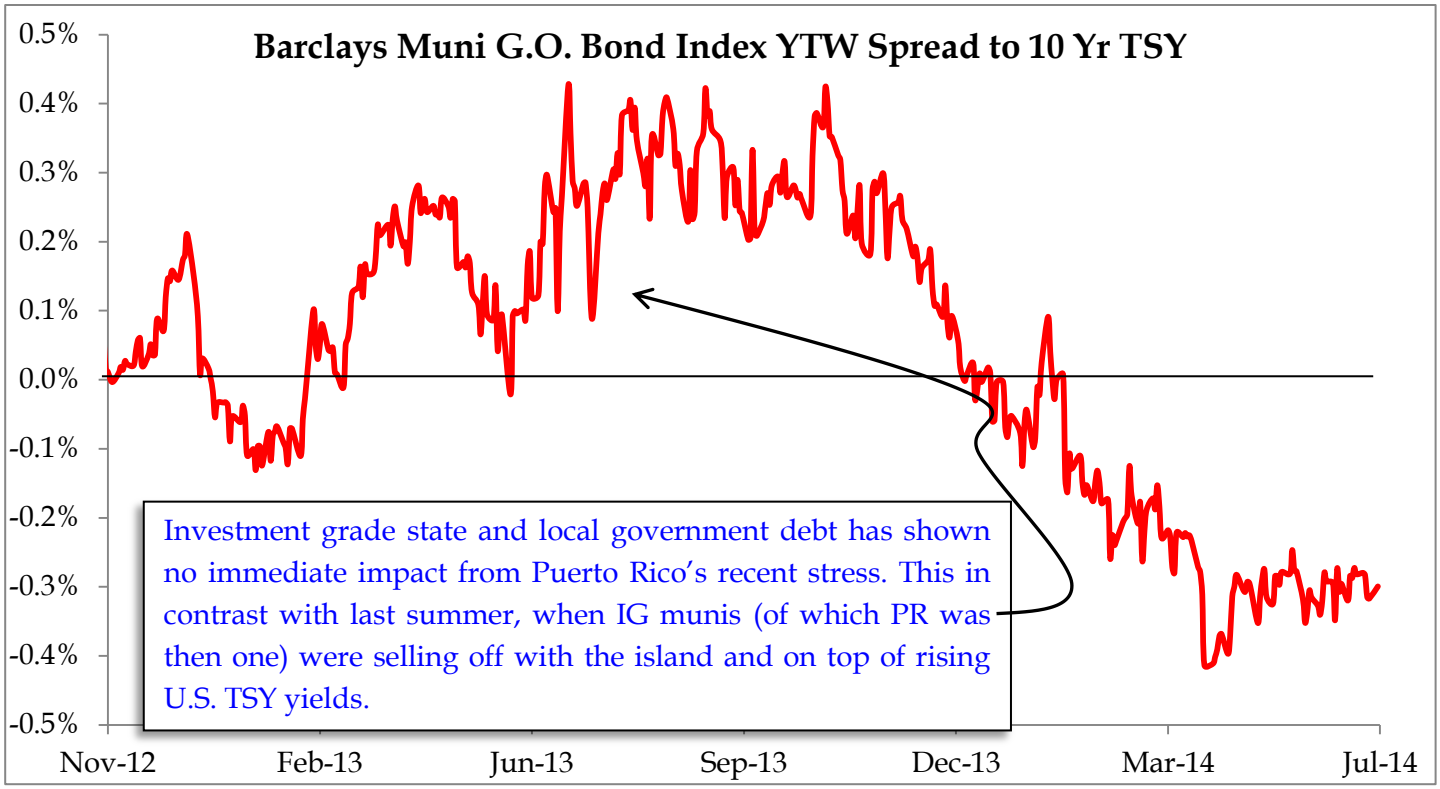
It's possible that if Detroit had been given infinitely more time, then rising property values would have eventually helped to right the city's fiscal ship. It's possible, but not likely. Rather, one of the lessons to be learned from Detroit is that intervention needs to be done early enough to prevent erosion of the tax base so that property values can support revenue demands, particularly in an economic downturn. **With home prices rising again, local property tax revenues will likely provide a buffer for even the most indebted cities, making another Detroit unlikely in the next few years.** But cities that don't heed the warning that high crime and high debt must be dealt with BEFORE property values begin to plunge again, may find that the expected uptick in property tax revenues just delays the onset of the Hill Street Syndrome, but doesn't actually prevent it.

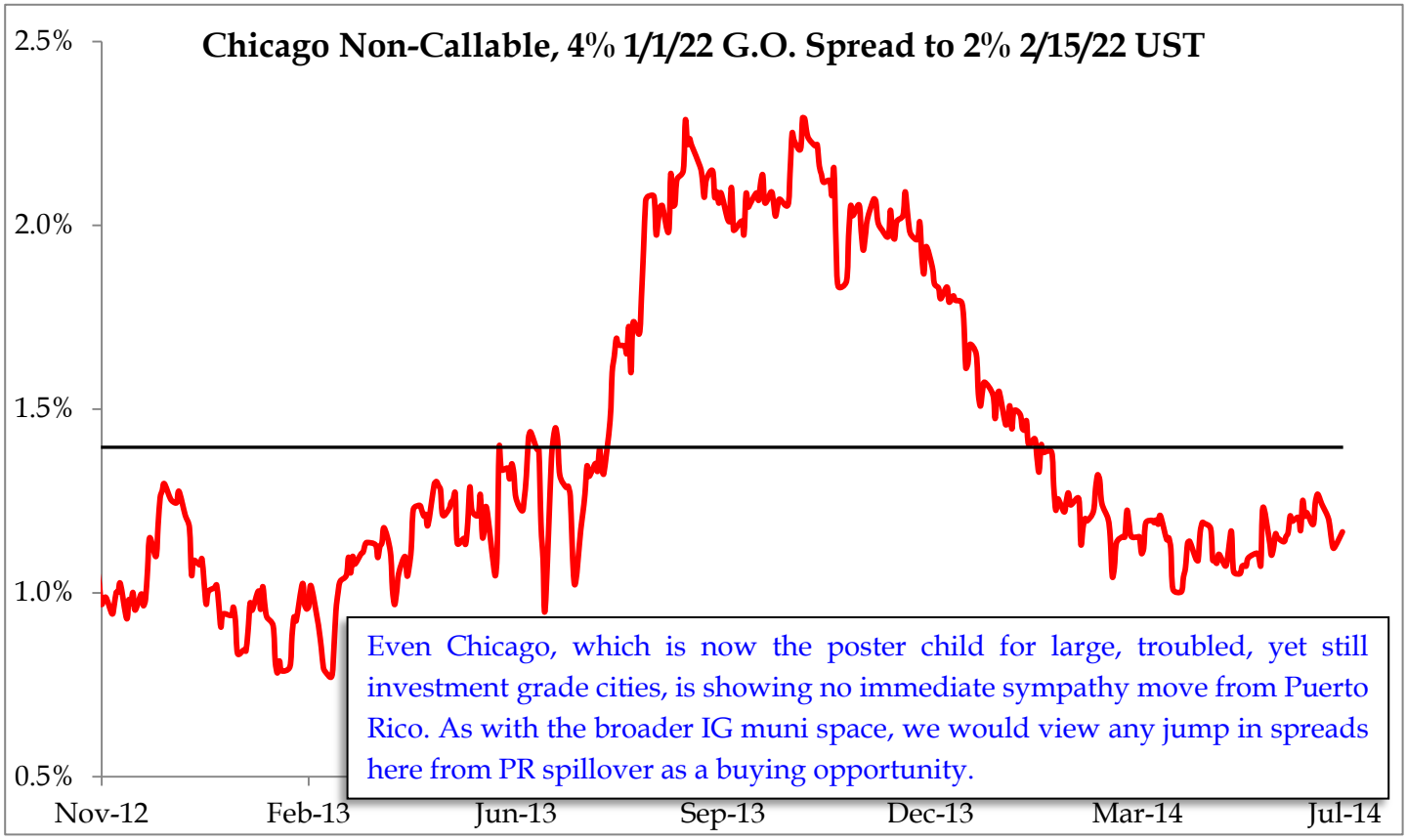


WILL MUNI RALLY BE SHATTERED AS PUERTO RICO ENTERS NEXT STAGE OF CRISIS?

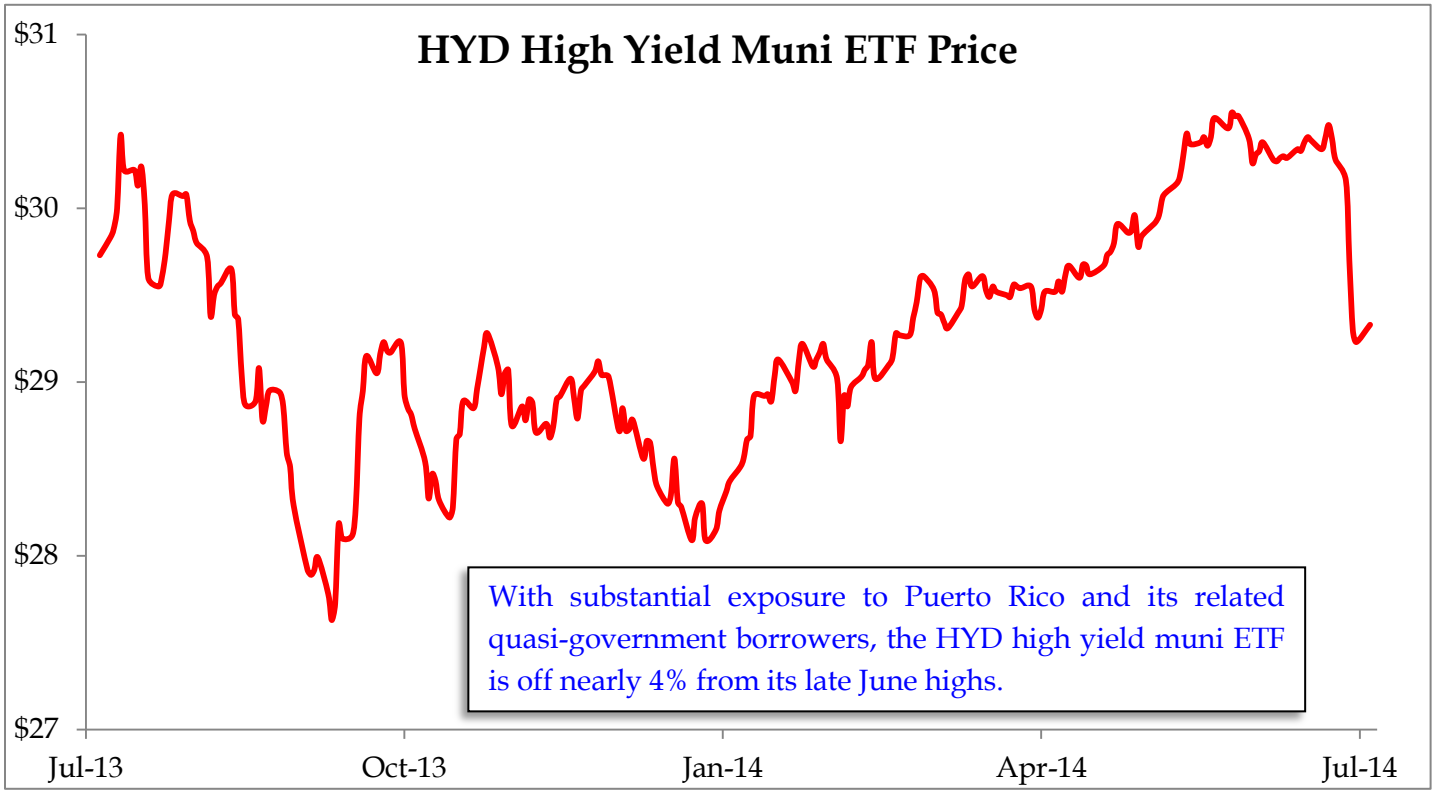
It's a pattern witnessed many times before, most recently with Greece from 2010 to 2013. **A large government credit finds itself in the crosshairs of the market due to a combination of offshore macro events, onshore long-term economic stress, growing solvency concerns, and an inopportune local geopolitical event. It eventually finds itself in a hopeless battle against creditors in the successive years that results in either a bailout, a default, or both.** The first phase usually showcases government officials who openly deny any signs of credit stress, while providing assurances of adequate liquidity, and a promise to strengthen the issuer's fiscal position. The market usually doesn't buy it, pushing borrowing costs higher, to which the government officials usually respond with public indignation, and private condemnation of speculators. This further irritates bond markets, which continue to push borrowing costs higher and threaten to strip the issuer of market access. Eventually, this forces government officials to hastily push through austerity measures while paying up to sure up liquidity. This usually buys the issuer some time, generally less than a year, to miraculously turn things around or find a stable source of cheap financing (see Italy and Spain in this latter case). In most cases though, the government entity then proceeds to commit another self-inflicted wound, usually well before analysts were anticipating a judgment day, and this sets off a second run in the bond markets, which ensures a complete loss of bond market access. From there, markets are then pricing the issuer towards insolvency, or in the case of government bond markets, some type of forced debt swap and default. In the years since the crisis, this second phase has quickly dragged in directly related and even some non-related issuers as market jitters caused knee-jerk selling, which exposed some of the other more vulnerable issuers. **As Puerto Rico enters the second stage of what is looking more and more like a multi-year slide towards restructuring of much of the island's debt, this risk of dragging down borrowers from Chicago to Ontario is one which must be considered.** This was a legitimate risk a year ago during the "Taper Tantrum" and after the Detroit default and the Chicago downgrades. **But fast forward a year and this contagion scenario is now looking like a very low probability event, and we would not expect to see a material divergence in valuations in the investment grade muni space on further Puerto Rico stress.** Perhaps this is a sign that the western bond markets are finally transitioning into a new era, where contagion isn't an immediate risk. Or maybe it's simply a matter of timing, where Puerto Rico's most recent round of stress has thankfully, to date, not coincided with a jump in benchmark yields, a broad credit spread widening, or a string of related municipal issuers experiencing well-publicized stress. **Whatever the cause, we would view any sympathy selling in the broader muni market from a Puerto Rico event as a buying opportunity for investment grade state and local government credits.** In particular, we will be watching for selling in credits like Chicago and even the state of Illinois for signs that Puerto Rico induced nervousness is overdone.

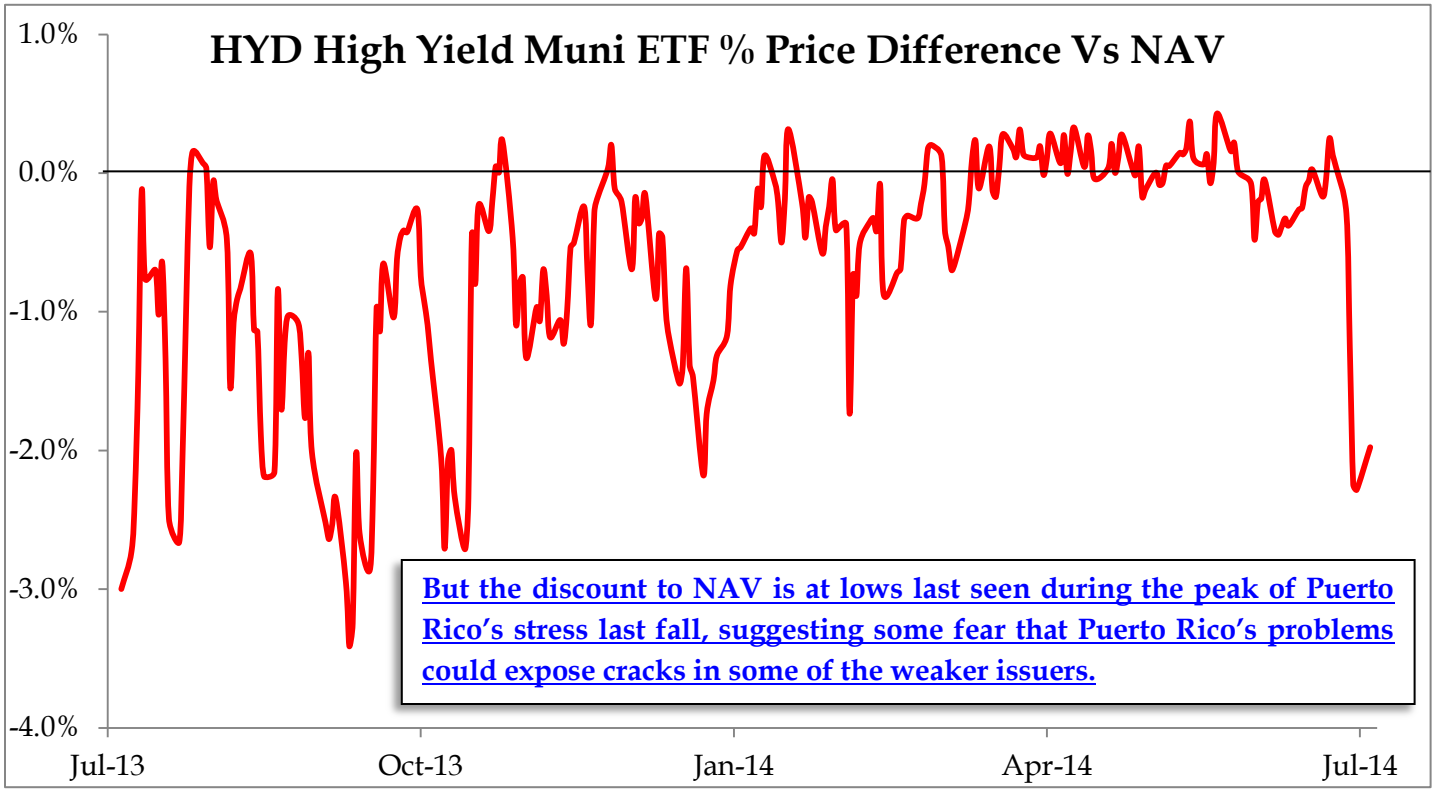
NO SIGNS YET OF WORRIES IN THE INVESTMENT GRADE MUNI SPACE, AND WE WOULD EXPECT THIS TO CONTINUE





BUT PUERTO RICO'S IMPACT IS ALREADY BEING FELT IN THE JUNK RATED MUNI SPACE





SO WHAT CAUSED THE MOST RECENT JUMP IN PUERTO RICO ANXIETY?

Puerto Rico has always been seen as a government with a strong determination to make good on its debts, even though the ability was in question. But the recently passed "Recovery Act", which appears to give beleaguered entities like the Puerto Rico Electric Power Authority (PREPA) the ability to negotiate with creditors, has brought this assumption into question, and not just for the public corporations, which the act is in reference too. Both investors and rating agencies have questioned, and rightfully so, if this is a change in the Island's previous commitments to always make good on its debts, and if this signifies that G.O. and sales tax-backed debt (which are excluded from the Recovery Act) could one day also be up for distressed negotiations. **The response has been swift and painful; downgrades have been multiple notches, spreads on all PR debt have surged again to new highs, and the Island is now almost certainly locked out of bond markets. Although the 2015 budget appears to offer enough liquidity and balance to meet upcoming G.O. obligations, debt service will grow beyond 2017, and liquidity may only be ample to get to the middle of 2015.** So at some time in the next 12 to 24 months, Puerto Rico will need to find more revenue sources/spending cuts to convince bond markets to open up again, and at rates that the Island can manage long-term, or else rising yields will just push the Commonwealth back to the brink again as the U.S. economic cycle matures. **We make no argument today in favor of any potential outcome for Puerto Rico's general obligations, but rather we note that the longer this crisis plays out, the more damage that will be done to the Island and existing bondholders, but the more time it provides unrelated issuers in the muni space to distance themselves from the Commonwealth.**

Troubled Puerto Rico Power Utility Says it has Agreement with Lenders to Delay Debt Payments

July 7 (Fox Business) - The financially troubled power company in Puerto Rico said Monday that it reached an agreement with lenders to delay payments on its lines of credit, giving it some breathing room as it seeks to avoid a default that spook bond markets.

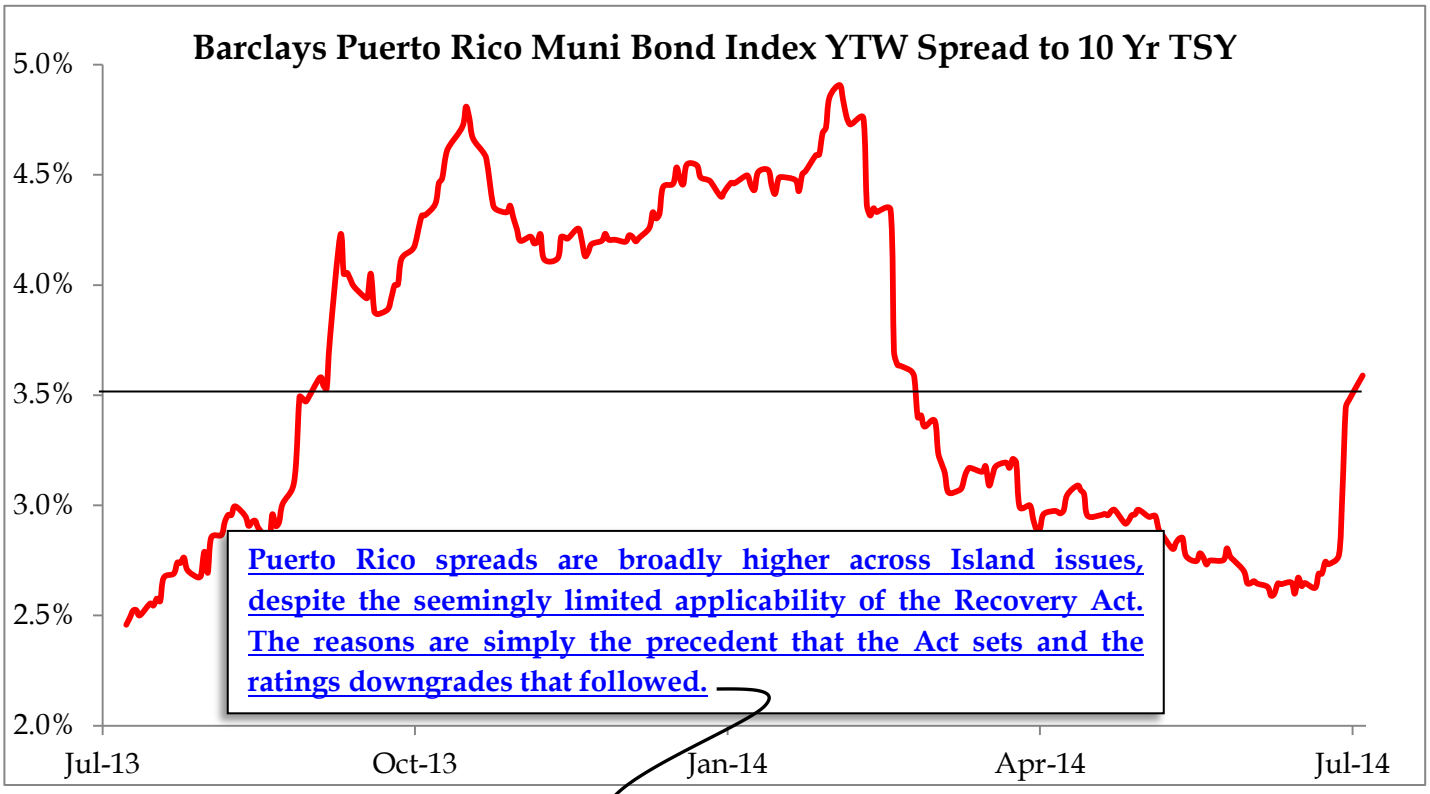
Under the agreement, the publicly owned Puerto Rico Electric Power Authority says it may delay payments through July 31 while it continues talks with lenders and looks for a longer term solution to problems that include deep debt and an overreliance on expensive fuel and out-of-date infrastructure.

"While PREPA faces certain financial challenges today, we are working hard to improve operations," Executive Director Juan Alicea Flores said, referring to the utility by its acronym in Spanish.

The utility has lines of credit totaling about $800 million with Citibank and Scotiabank and about $9 billion in outstanding debt, largely a result of years of borrowing to close deficits and meet expenses.

PREPA, along with the publicly owned water utility and the highway and transportation agency, gained the ability to restructure debt in a process similar to bankruptcy under legislation approved in June by the government of the U.S. island territory. The law, which is being challenged in court, spooked investors and prompted downgrades of Puerto Rico debt……..

RECOVERY ACT ONLY APPLIES TO THE ISLAND'S PUBLIC CORPORATIONS, BUT PR SPREADS HAVE BROADLY SURGED



Puerto Rico Downgrade Raises Default Fears

July 1 (Barron's) - Moody's Investors Service this afternoon dealt a blow to Puerto Rico's effort to preserve the credit standing of the central government with a surprisingly broad downgrade of every major Puerto Rican debt issuer.

All Puerto Rican bond issuers now have junk ratings from Moody's, including government-owned corporation Cofina, which has long been viewed as the premier credit on the island thanks to a lien on sale-tax receipts. Barron's first warned readers last summer that the commonwealth's financial situation was shakier than investors realized.

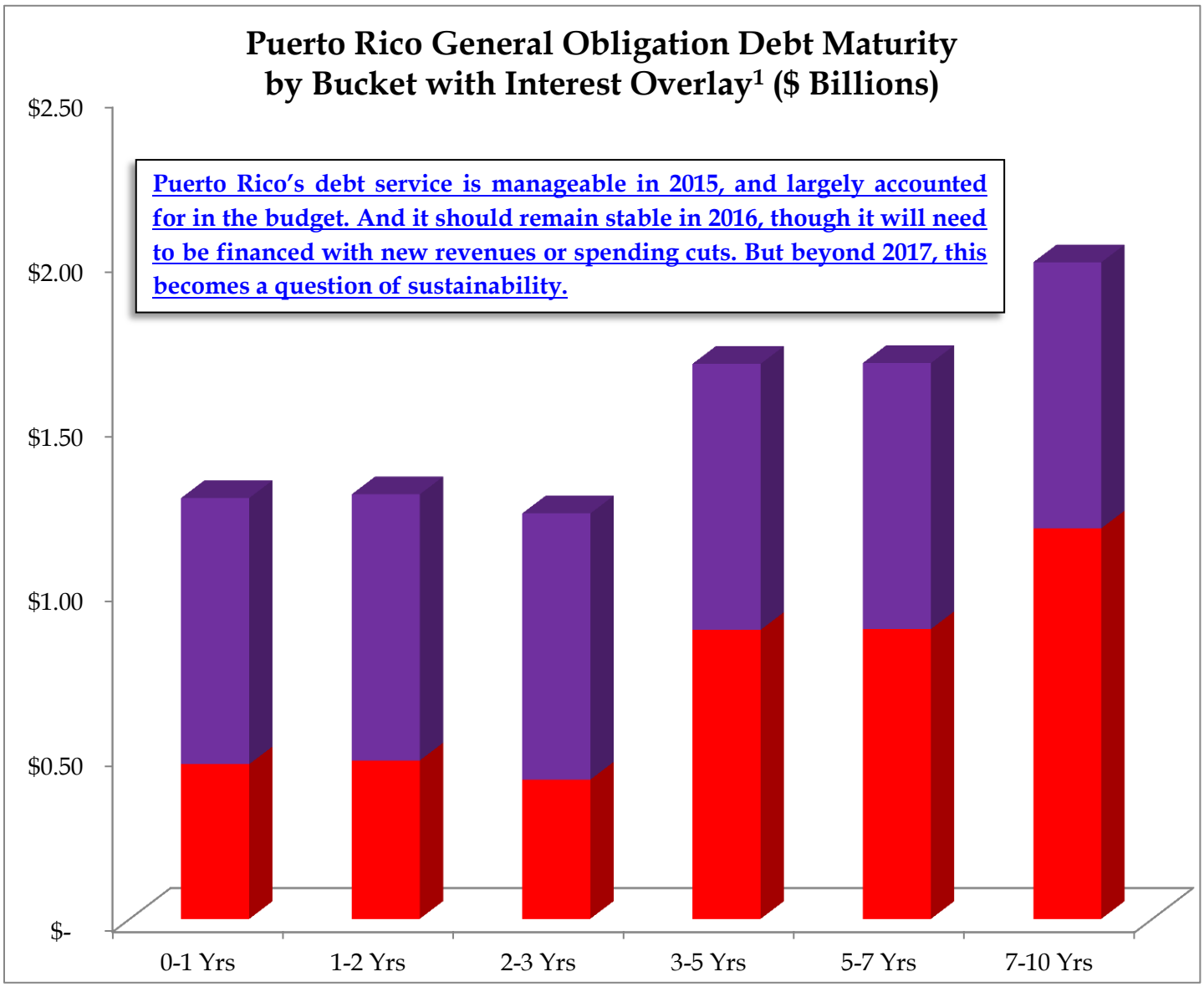
The Moody's action further depressed Puerto Rican bond prices and hurt shares of Assured Guaranty Municipal Holdings (ticker: AGO) and MBIA (MBI), which have insured a sizable amount of Puerto Rican debt. Puerto Rico's benchmark $3.5 billion of 8% bonds due in 2035 that were sold in March dropped almost three points to 85.50, leaving them well below their offering price of 93. They now yield 9.6%. Puerto Rico has more than $70 billion of total debt.

Puerto Rico's move last week to enact a law that would permit the restructuring of its public corporations, including the Puerto Rico Electric Power Authority, was designed to bolster the commonwealth's general-obligation bonds and shore up the government's liquidity position by essentially removing support for the indebted public corporations.

Moody's, however, was wary of the distinction that Puerto Rico is trying to make. **"By providing for defaults by certain issuers that the central government has long supported, Puerto Rico's new law marks the end of the commonwealth's long history of taking actions needed to support its debt. It signals a depleted capacity for revenue increases and austerity measures and a new preference for shifting fiscal pressures to creditors, which, in our view, has implications for all of Puerto Rico's debt, including that of the central government".**

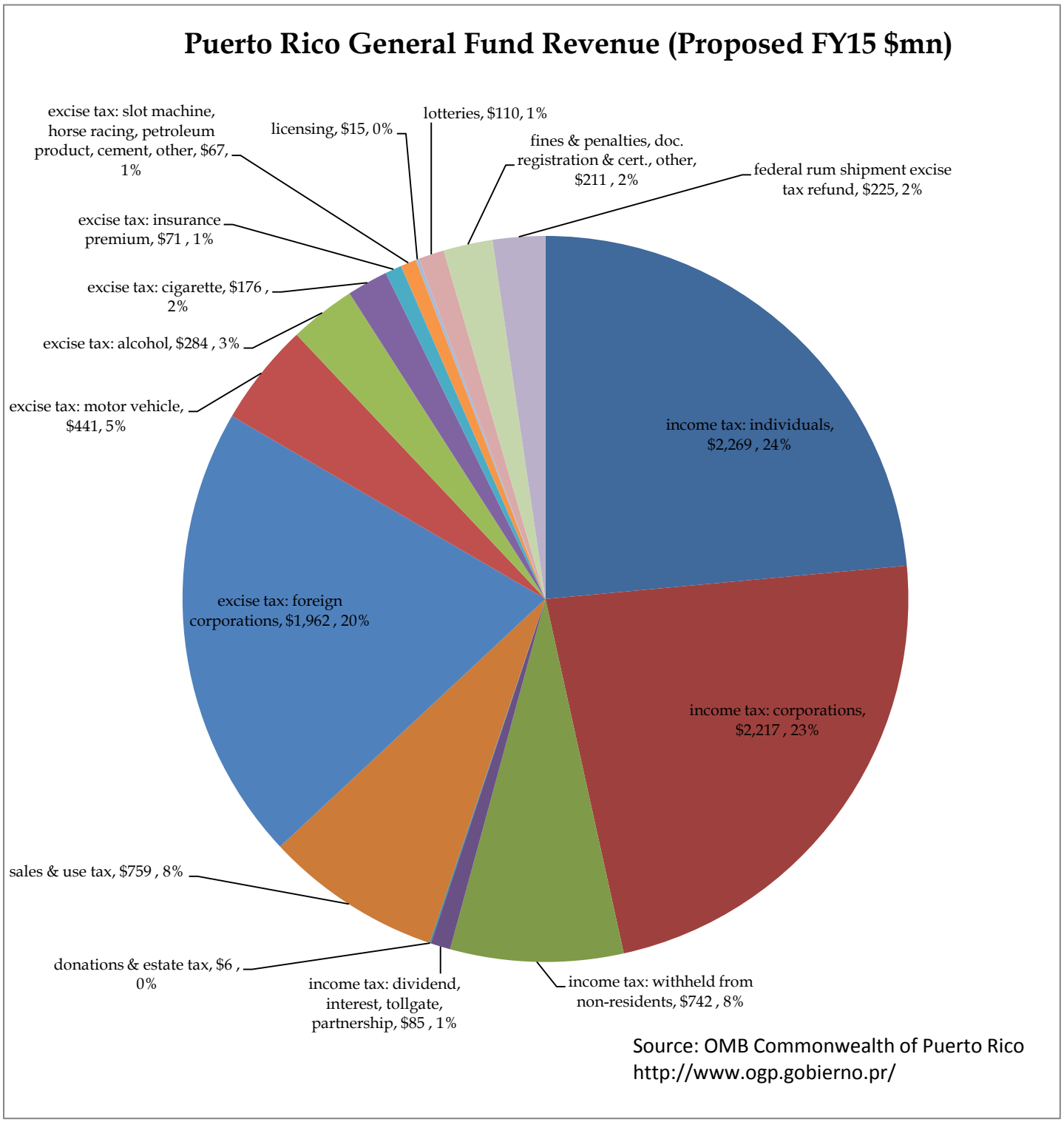
IS THERE A DISTINCTION BETWEEN PREPA AND G.O.s NOW? IN THE SHORT-TERM, YES.

The proposed 2015 Puerto Rican general fund (shown on next page) is roughly balanced, and the recently passed fund (not shown) is as well, at least in theory, with debt service over the next 12 months being paid for with the liquidity raised earlier this year. This means that the Island has some time to improve its finances further and demonstrate a worthiness to retain bond market access next year. But this becomes more difficult beyond 2017, when debt service begins to grow. **Thus, for the near-term, there's likely a distinction between G.O. debt and public corporation debt, both in ability, and willingness to pay, but this distinction will only last as long as revenue's are in line with expectations, and/or spending cuts can be achieved.**

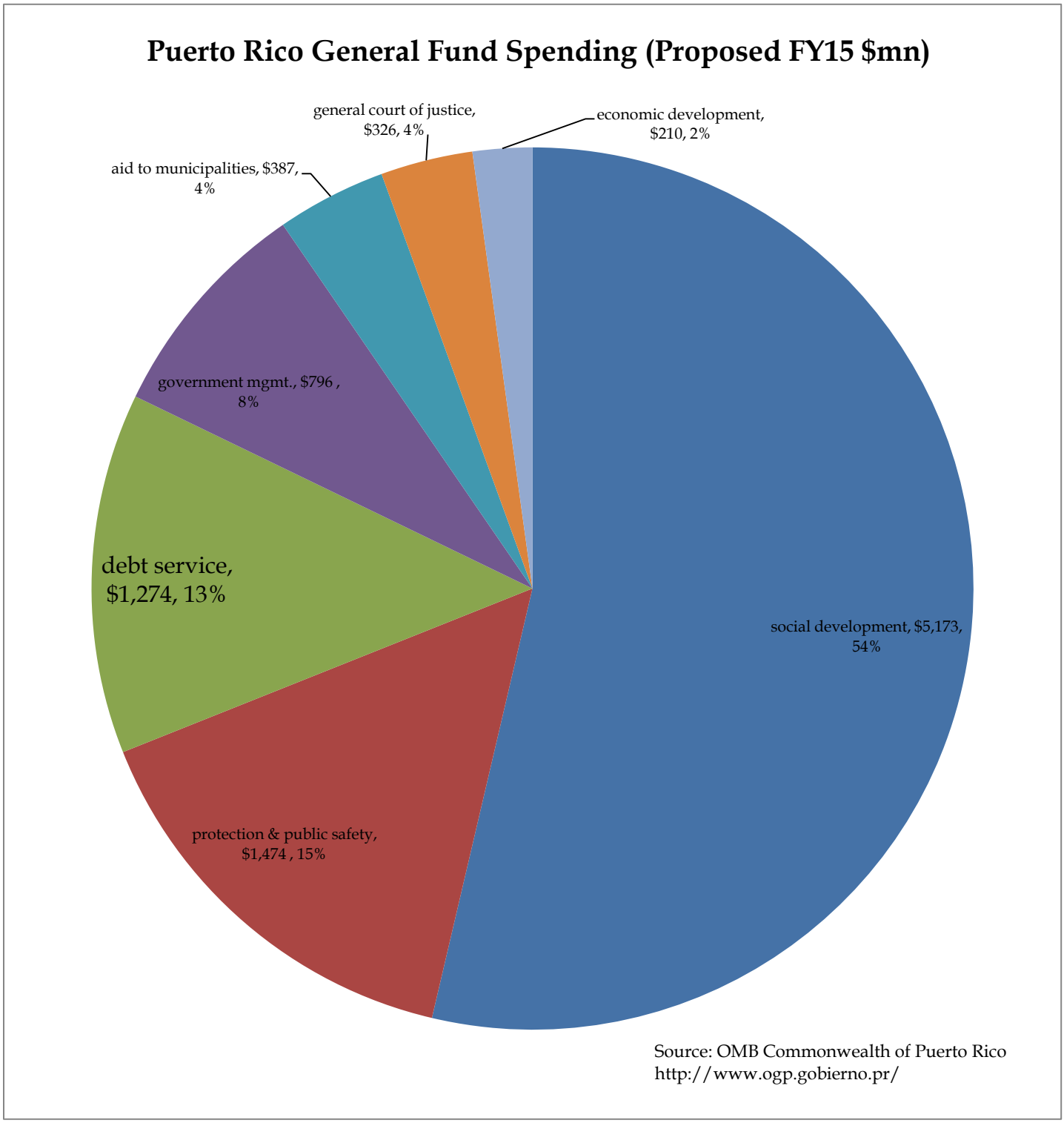


1) We've used the interest expense for the next 12 months as a proxy for the successive years.

PUERTO RICO'S GENERAL FUND IS ROUGHLY BALANCED IN 2015, MAKING DEBT SERVICE MANAGEABLE THIS YEAR



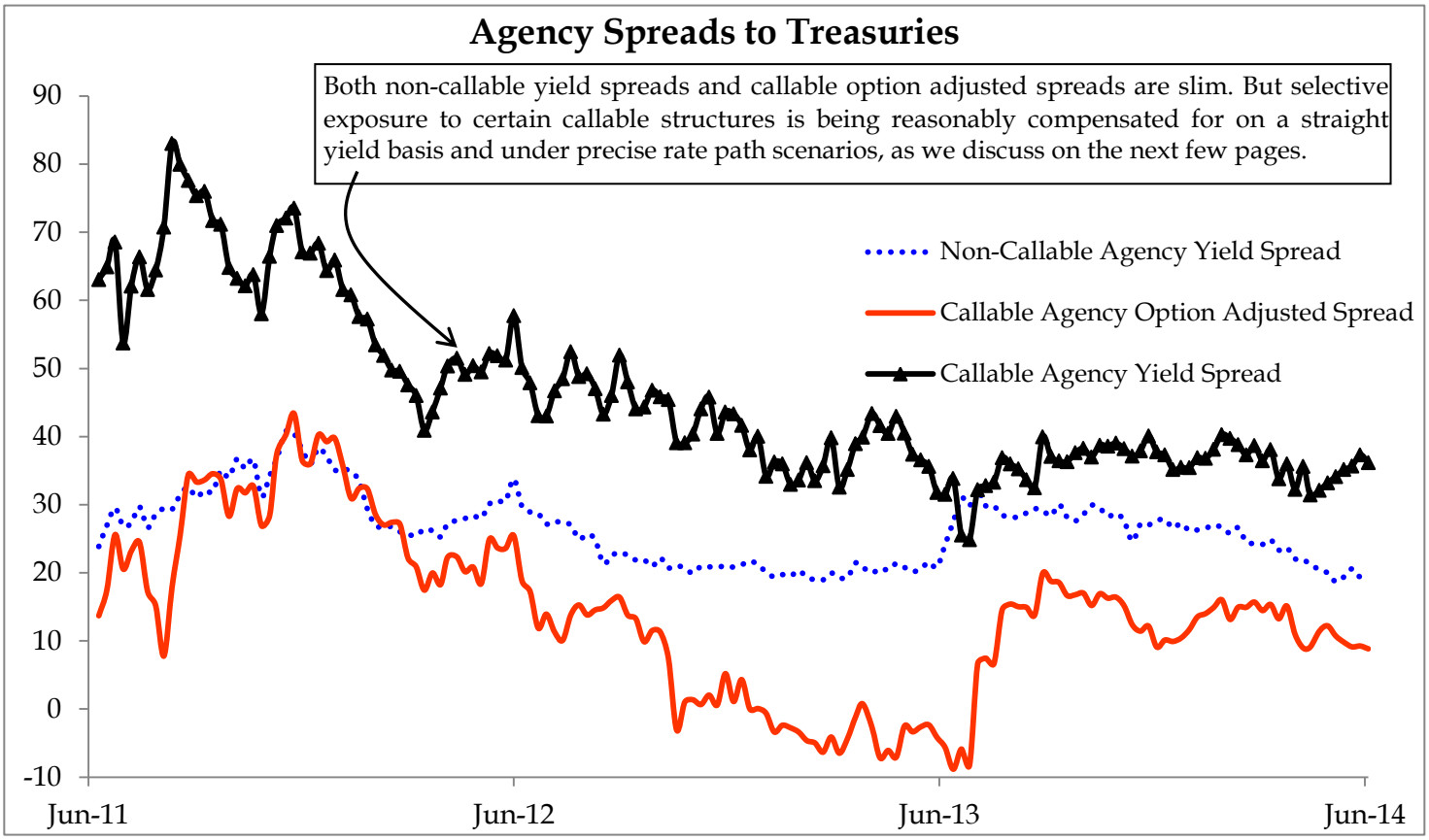
2015 SPENDING INCLUDES $1.3 BILLION IN DEBT SERVICE, BUT THE QUESTION OF HOW TO PAY SIMILAR AMOUNTS IN FUTURE YEARS IS AN IMPORTANT QUESTION FOR



A GUIDE TO CHOOSING CALLABLE AGENCY STRUCTURES

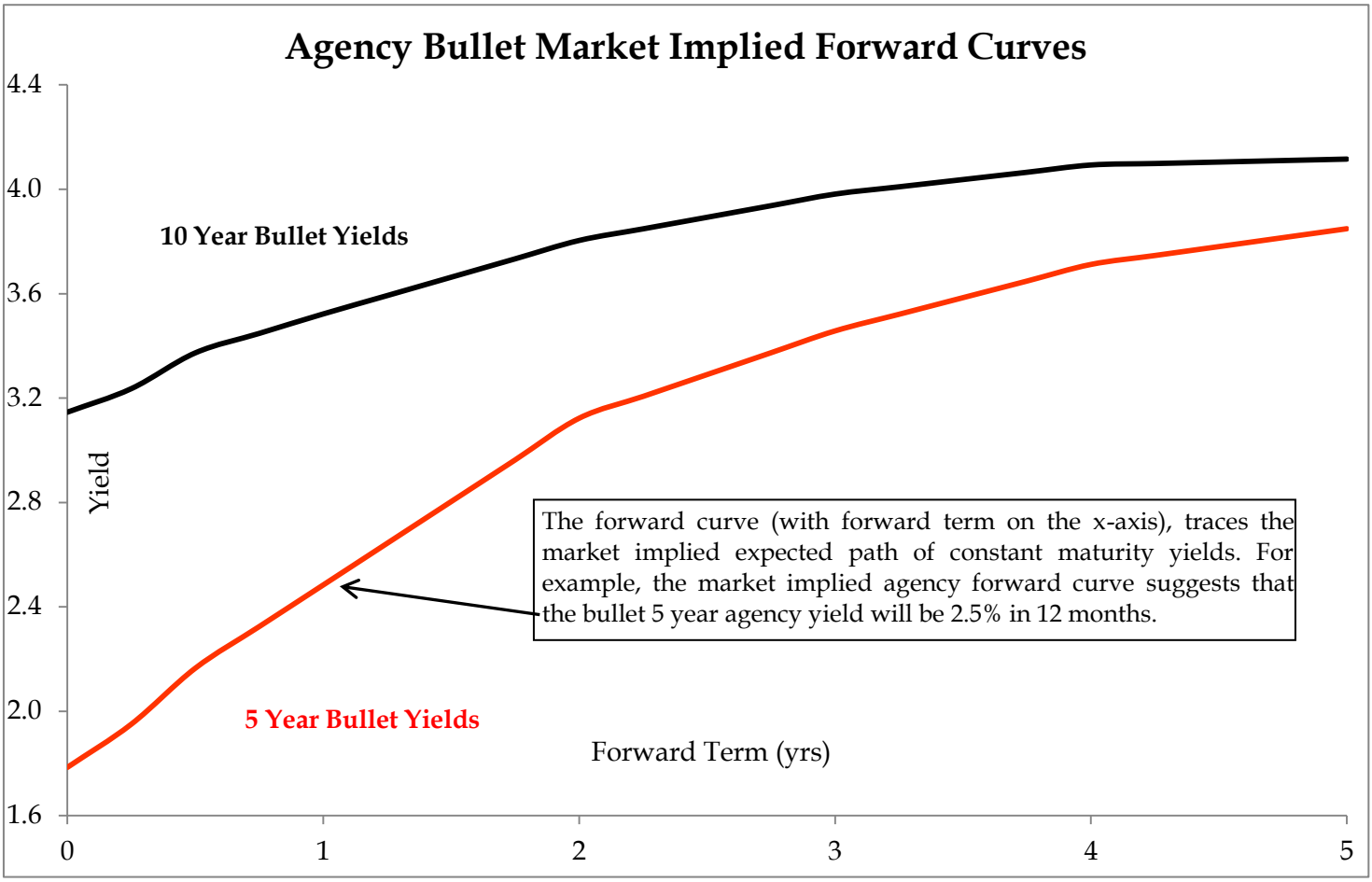
With intermediate maturity Treasury yields having solidly bounced off of their spring lows, interest is growing in agency paper. But even after a 20 bps jump in 5 year TSY yields, it would be a stretch to call agency paper cheap, either in absolute form, or relative to Treasuries. In fact, bullet agency spreads are still in the low double digits in the belly of the curve, and callable option adjusted spreads are similarly paltry. As a consequence, buyers of agency paper need to take on call risk to pick up extra yield, and finding the right structure to coincide with one's interest rate outlook is critical. The good news is that many callable agency structures still do offer attractive yield spreads to Treasuries before option adjustments; that is to say that for the right structure and the right rate forecast, option risk is reasonably well compensated for, though certainly not cheap. In our Callable Agency Matrix Monitor, we note the recently issued agency structures (we focus on Bermudan structures in this report) that we believe are still reasonably attractive, given our macro view. **Our findings suggest that Bermudan style CUSIPs that are in the 4 to 6 year final maturity bucket, are slightly in the money, and with 3 to 6 month locks, are the most attractive in light of our macro view that yields are likely to rise in the next few quarters.**

SLIM OAS MAKES AGENCY STRUCTURE SELECTION



CRITICAL FIRST STEP IN CHOOSING CALL STRUCTURE: DETERMINING THE EXPECTED FUTURE RATE PATH

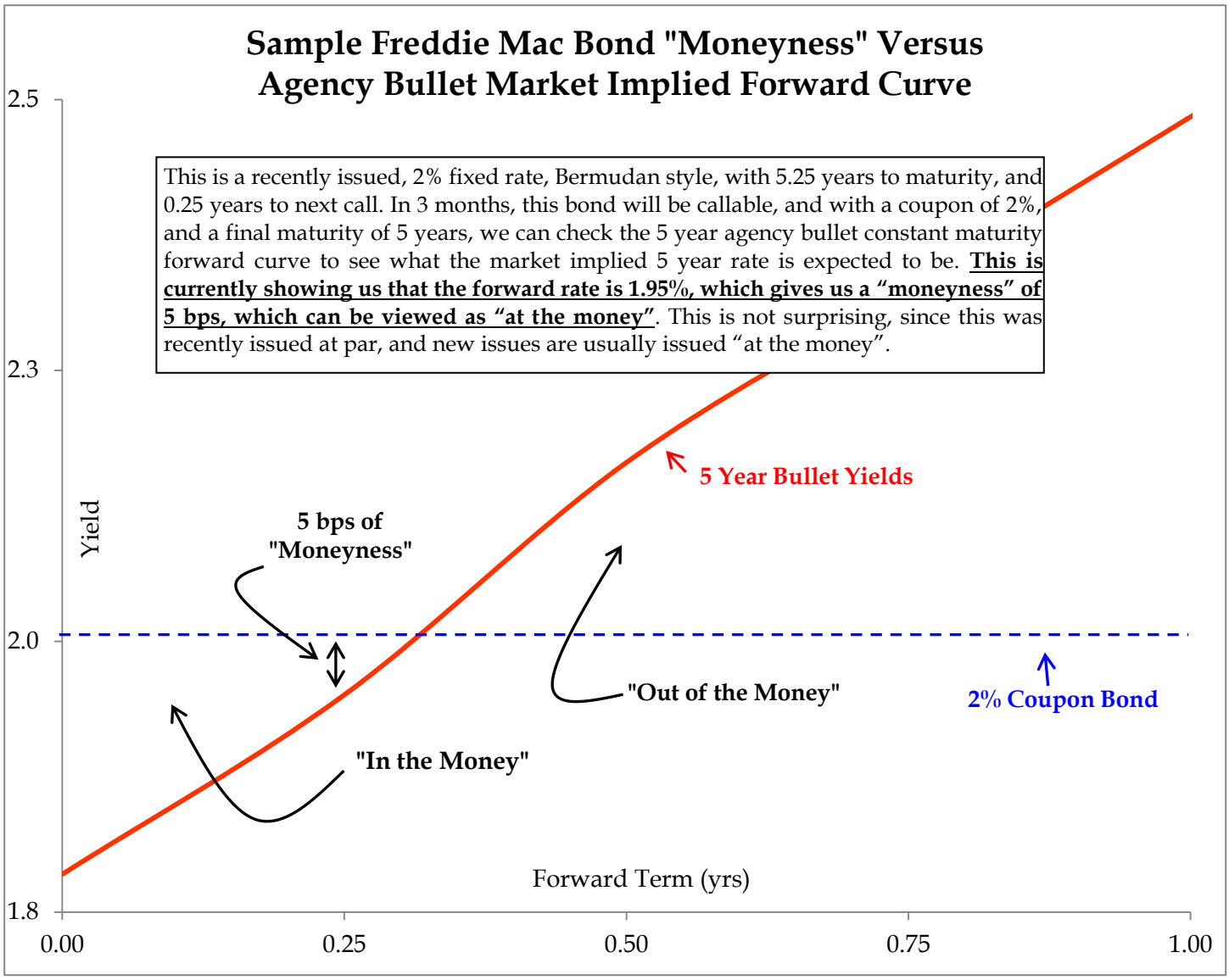
The first step in choosing a callable agency structure is to estimate what the expected path of agency bullet rates will look like over the successive months/years. One way to do this is to construct a market implied path, as we've shown below, and this will be a critical input to determining call likelihood later on. The drawback to this as a sole source of rate expectations is that this is the market implied consensus, and it may not represent "in house views".



Current market implied agency bullet 5 and 10 year forward curves are directionally consistent with our in house views (10 year and 5 year bullet agency yields higher 6 and 12 months from now), but we expect a slightly "flatter path" for the 10 year. By this, we mean that we believe this market implied path underestimates where 10 year bullet yields may reside in 6 to 24 months by about 50 to 75 bps. In contrast, we might note that the market implied path for the 5 year is more consistent with our internal views. **In light of this internal view on rates, we would note that 5 year bullet paper is likely to be more reasonably priced than 10 year paper, at least as a general rule, though we need to explore intermediate maturity callable structures in more detail to see if this concept carries over to the callable space.**

FROM AN EXPECTED FORWARD PATH, WE CAN ESTIMATE THE EXPECTED CALL DATE

We'll use the fixed rate coupon and the expected bullet forward curve to determine "moneyness", and thus expected call date. By "moneyness", we mean how much higher is the bond's fixed rate coupon versus the market (or in house implied) bullet forward curve. Consider as an example, a newly issued Freddie Mac bond in the 5 year bucket:



NEXT STEP IS TO CALCULATE RELATIVE VALUE FOR A CALLABLE BOND VERSUS THE ALTERNATIVE, BULLETS

We can now measure relative value for any fixed rate callable bond, and we'll do this in two ways. The first method is the simplest method; we calculate the yield to maturity and yield to *most likely* call date (which is usually the nearest date), and then for each date, we subtract the YTM of a benchmark agency bullet with final maturity equal to maturity date and one equal to the call date of the callable bond. **For example, looking at our sample bond, the YTM and YTC are roughly 2.05% and 2.81% respectively, and the YTM of a 5.25 year bullet is about 1.87%, whereas the YTM of a 0.25 year bullet is 0.06%, which gives us a YTM spread of 18 bps and a YTC spread of 275 bps.** The fact that this bond is newly issued and "at the money" suggests that a call is possible, and can't be ruled out, so it's not evident whether we should focus on YTM or YTC in this case. If it had been deeply "in the money", say a "moneyness" of 100 bps, then it would only make sense to focus on the YTC spread. For a deeply out of the money bond, only YTM would be relevant. But for our current bond, we're near the money, and it might be helpful to get a better estimate of value. To do so, we introduce a new concept, which we call the synthetic callable.

THE SYNTHETIC CALLABLE

From an issuer's standpoint, any fixed rate callable bond (assume for simplicity it's a European style call) can be synthetically reproduced with the following basket of financial instruments:

1 Pay Fixed Swap – Fixed leg equal to the fixed rate on the callable bond and maturity equal to the call date of the bond.

1 Long European Style Pay Fixed Swaption – Fixed leg equal to the fixed rate on the callable bond where the option matures on the bond's call date and the underlying swap has a final maturity equal to the final maturity of the uncalled bond (the stub).

1 Short Maturity Borrowing – This is a monthly borrowing source that is rolled periodically to coincide with the reset dates of the floating leg of the pay fixed swap.

Example:

Freddie Mac Bond ≈

1 Pay Fixed Swap with Maturity of 9/30/2014 and Fixed Leg of 2%

+

1 Long Bermudan Style Pay Fixed Swaption with Exercise Date of 9/30/2014 and Fixed Leg of 2%, with Final Maturity 9/30/2019

+

3 Month Commercial Paper/Discount Note Rolled Every 3 Months for the life of the Swap/Swaption

THE CALLABLE AGENCY MATRIX MONITOR

Once moneyness has been determined, we then bucket the visible inventory of on the run and recent issues into matrix form based on time to call (lock period), final maturity, and moneyness (excess coupon versus the on the run bullet forward curve). **We call this our Callable Agency Matrix Monitor, and we express relative value for each of these buckets by calculating the YTM and YTC spreads versus SPOT agency bullet yields for each newly issued bond in these buckets. As a second measure of relative value, we calculate the YTM and YTC of a synthetic callable bond, using the method described on the previous page. We then use these synthetic callable yields to calculate a theoretical minimum yield spread to bullets[1] for each structure, thus providing us with a spread floor that may be more reasonable for "at the money" CUSIPs.** For example, sticking with our sample bond, our synthetic callable analysis shows that this CUSIP should, at a minimum, yield 1.90% on a YTM basis and 2.12% on a YTC basis, both of which are well below the actual YTM and YTC of 2.05% and 2.81%. But is this the cheapest available CUSIP in this bucket? Our analysis shows that of the CUSIPs that we sourced, it was in fact the cheapest in its bucket on both a YTC basis and when compared to the theoretical minimum yield. But it's not the cheapest on a YTM basis. Nonetheless, because it's slightly in the money in terms of bullet forward rates, we're inclined to favor YTC and the synthetic callable method over the YTM method.

		5 to 6 Year Bermudan Fixed					
		Moneyness					
		-0.25% to 0.00%		0.00% to 0.25%		0.25% to 0.50%	
Lock	0-3M						
	YTC Sprd to Bullet						
	YTM Sprd to Bullet						
	3-6M						
	YTC Sprd to Bullet			2.75%	2.06%		
	YTM Sprd to Bullet			0.17%	0.02%		
	6-9M						
	YTC Sprd to Bullet	2.95%	4.64%				
	YTM Sprd to Bullet	0.09%	0.09%				

Key

Actual YTC Sprd	**Theoretical Minimum**
Actual YTM Sprd	**Theoretical Minimum**

THE CALLABLE AGENCY MATRIX MONITOR: 4 TO 5 YEAR AND 3 TO 4 YEAR BUCKETS

In light of our view that 5 year yields, though less overbought in our view than 10 year yields, are still likely to rise materially in the next 12 months, we find that CUSIPs in the 4 to 5 year bucket are the more attractive bucket, as they offer comparable YTM to CUSIPs in the 5 to 6 year bucket. And on a spread to bullets basis, CUSIPs in the 4 to 5 year bucket offer about the same spread to the bullet curve as the 5 to 6 year bucket, and with noticeably less duration and overall interest rate risk.

		4 to 5 Year Bermudan Fixed		
		Moneyness		
		-0.25% to 0.00%	0.00% to 0.25%	0.25% to 0.50%
Lock	**0-3M**			
	YTC Sprd to Bullet			
	YTM Sprd to Bullet			
	3-6M			
	YTC Sprd to Bullet		**2.15%** **2.11%**	
	YTM Sprd to Bullet		**0.16%** **0.07%**	
	6-9M			
	YTC Sprd to Bullet			
	YTM Sprd to Bullet			

Key

Actual YTC Sprd	**Theoretical Minimum**
Actual YTM Sprd	**Theoretical Minimum**

		3 to 4 Year Bermudan Fixed				
		Moneyness				
		-0.25% to 0.00%		0.00% to 0.25%		0.25% to 0.50%
Lock	**0-3M**					
	YTC Sprd to Bullet					
	YTM Sprd to Bullet					
	3-6M					
	YTC Sprd to Bullet	2.81%	3.04%	1.62%	1.95%	
	YTM Sprd to Bullet	0.10%	0.02%	0.14%	0.06%	
	6-9M					
	YTC Sprd to Bullet	1.15%	3.21%			
	YTM Sprd to Bullet	0.10%	0.06%			